

CHED MEMORANDUM ORDER

No. _____

Series of _____

SUBJECT : POLICIES, STANDARDS, AND GUIDELINES FOR BACHELOR OF EDUCATION (BEd) PROGRAMS

In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "*Higher Education Act of 1994*," and in pursuance of an outcomes-based quality assurance system under CMO No. 46 s. 2012, and by virtue of **Commission en banc (CEB) Resolution No. , dated ,** the following policies, standards, and guidelines (PSGs) are hereby adopted and promulgated.

ARTICLE I INTRODUCTION

Section 1. Rationale

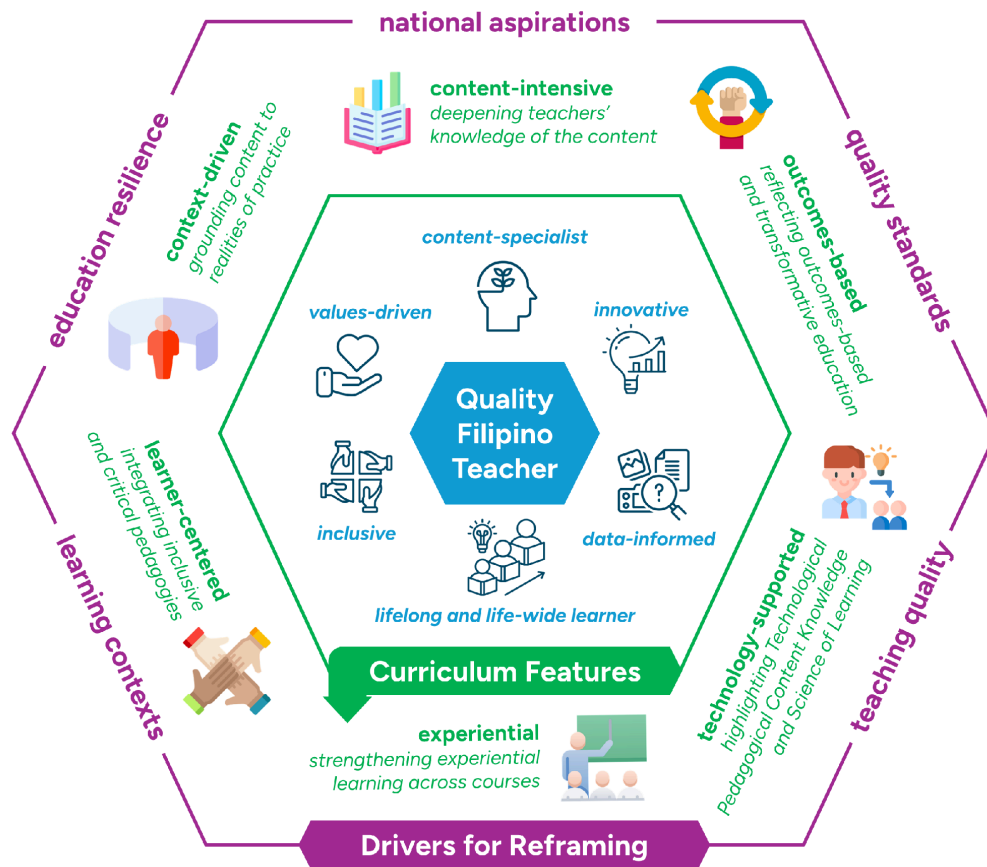
Anchored on the *reframing* of the pre-service teacher education curriculum, this PSG responds to the evolving educational demands driven by pertinent education policies and contextual needs. The PSG builds on the standards previously set in the different undergraduate programs in teacher education based on CMOs 74, 75, 76, 77, 78, 79, 80, and 82, s. 2017, and aligns with the Revised K to 10 Basic Education Curriculum (DepEd Order No. 10, s. 2024), Strengthened Senior High School Curriculum (DepEd Order No. 12, s. 2026), Outcomes-based Education (CMO 46, s. 2012), the Philippine Qualifications Framework (RA 10968), and the Philippine Professional Standards for Teachers (DepEd Order 42, s. 2017). Further, this curriculum directive is in accordance with the Excellence in Teacher Education Act (RA 11713), specifically the Teacher Education Council's mandate on setting "minimum requirements for teacher education and ensuring link between the outcomes of teacher education programs and the professional standards for teachers... (Section 8c)." Responsive to critical areas on pre-service teacher education, this PSG should strengthen the teacher education ecosystem, reinforce coherence between pre-service training and in-service practice, and support agency among teacher education institutions (TEIs).

The Reframed Pre-service Teacher Education Curriculum Framework

The *reframed* pre-service teacher education curriculum centers on developing the **Quality Filipino Teacher**. Represented conceptually as a hexagon, the desired **outcome** is placed at the core, complemented by the alignment and interrelationships among the **drivers** and enabling curriculum **features**. **Learning contexts** and **teaching quality** are positioned as key **drivers**, underscoring the importance of a strong community perspective in education. In particular, the framework emphasizes grounding the curriculum in diverse teaching and learning environments to strengthen community immersion as a vital avenue for teacher learning and for fostering meaningful school–community partnerships. The framework further reflects critical **drivers** that foreground the need for **educational resilience**, responsiveness to **national aspirations**, and adherence to **quality standards**.

The **drivers** for *reframing* call for the formation of a **Quality Filipino Teacher** who is **innovative, data-informed**, and a **specialist in disciplinary content**. Teaching quality is manifested in the capacity to adapt to and thrive across varied learner contexts, necessitating dispositions that are **inclusive, values-driven**, and oriented toward **lifelong and life-wide learning**. These competencies and dispositions inform the curriculum's **outcomes-based features**, ensuring alignment with established quality standards. Consequently, the curriculum is designed to be both **content-intensive** and **experiential**, grounding theoretical knowledge in the realities of practice. Further, it is **technology-supported** to enhance technological pedagogical content knowledge, while remaining **context-driven** and **learner-centered**, with a sustained emphasis on inclusive practices and critical pedagogies.

The Reframed Pre-service Teacher Education Curriculum Framework



CMO No. XX, s. 2026 specifies the design of the reframed Bachelor of Education (BEd) program. The sections outline the curriculum components, detailing the minimum requirements in terms of outcomes and structure. Curriculum mapping and course programming are presented to illustrate the operationalization of the curriculum. Ultimately, the degree program envisions the development of a Quality Filipino Teacher in the specialization areas.

ARTICLE II AUTHORITY TO OPERATE

Section 2. Government Recognition

All private higher education institutions (PHEIs) intending to offer the **BEd** program must first obtain the necessary authority from the Commission in accordance with this PSG. All PHEIs with an existing **BEd** program are required to adopt an outcomes-based approach in accordance with this PSG. State Universities and Colleges (SUCs) and Local Universities and Colleges (LUCs) should likewise strictly adhere to the provisions in these policies and standards.

ARTICLE III GENERAL PROVISIONS

Per Section 13 of RA 7722, the higher education institution shall exercise academic freedom in its curricular offerings but must comply with the minimum requirements for specific academic programs, the general education

distribution requirement, and the specific professional courses.

Section 3

The Articles that follow give minimum standards and other requirements. The minimum standards are expressed as a minimum set of desired program outcomes, as set forth in **Article IV Section 6**. The Commission on Higher Education (CHED) and the Teacher Education Council (TEC) *reframed* the pre-service teacher education curriculum to attain such outcomes. *Reframing* involved a critical process of rethinking, adjusting, and updating the existing pre-service teacher education curriculum to better meet the complex needs in education. This *reframed* curriculum is shown in **Article V**. The number of units of this curriculum is hereby prescribed as the "minimum unit requirement" under Section 13 of RA 7722. In designing the curriculum, CHED ensured alignment, as shown in the sample mapping in **Article V Section 9**.

CHED also employed outcomes-based and learner-centered approaches in determining appropriate curriculum delivery methods, as shown in the sample syllabus guides in **Annex G**. A repository of syllabus guides is also provided to serve as a reference for curriculum unpacking.

In **Article VI**, CHED determined the human resource requirements for administration and faculty. Requirements for physical resources, including the library, laboratories, and other facilities, are also provided in **Article VI**.

Section 4

The HEIs are allowed to design curricula suited to their own contexts and missions, provided that they can demonstrate that the same leads to the attainment of the required minimum set of outcomes, albeit by a different route. In the same vein, they have latitude in terms of curriculum delivery and the specification and deployment of human and physical resources, as long as they can show that the attainment of the program outcomes and satisfaction of the program educational objectives can be assured by the alternative means they propose.

HEIs can use the **CHED Implementation Handbook for Outcomes-Based Education (OBE) and the Institutional Sustainability Assessment (ISA)** as guides in preparing their submissions for **Article VII**.

ARTICLE IV PROGRAM SPECIFICATION

Section 5. Program Description

The Bachelor of Education (BEd) is designed for pre-service teachers specializing in the content areas in the basic education levels. The BEd Specializations that prepare pre-service teachers in teaching in the Secondary Level (Key Stages 3 and 4 - Grades 7 to 12) include: English, Filipino, Mathematics, General Science, Biological Science, Physical Science, Earth and Space Science, Social Studies, and Values Education. Specialization programs in Arts and Culture Education, and Physical and Health Education provide preparation for teaching in the Elementary (Key Stage 2 - Grades 4 to 6) and Secondary Levels (Key Stages 3 and 4 - Grades 7 to 12).

The BEd program includes an optional undergraduate certificate in a focus area. This optional component is designed to respond to context-specific demands grounded in the needs of Filipino learners and the broader Philippine education system. The inclusion of a certificate is intended to enrich the undergraduate degree by providing complementary knowledge and skills that equip pre-service teachers with more comprehensive, well-rounded qualifications. Emphasizing learner diversity and inclusive learning environments, the Certificate Program covers the following areas: (1) Alternative Learning System, (2) Literacy Education, (3) Indigenous Peoples Education, (4) Islamic Education, (5) Multigrade Education, and (6) Special Needs and Inclusive Education. Each certificate comprises six specialized courses that are integrated into the undergraduate degree program (Annex E). Offering the certificate program should respond to contextual needs and conform to existing CHED requirements for human and physical resources, including libraries, as determined in Article VI Sections 14, 15, and 16.

5.1 Degree Name

The BEd degree program offers two pathways and shall be called:

1. Bachelor of Education Major in:
 - English
 - Filipino

- Mathematics
- General Science
- Biological Science
- Physical Science
- Earth and Space Science
- Social Studies
- Values Education
- Arts and Culture Education
- Physical and Health Education

2. Bachelor of Education with Major and Certificate in:

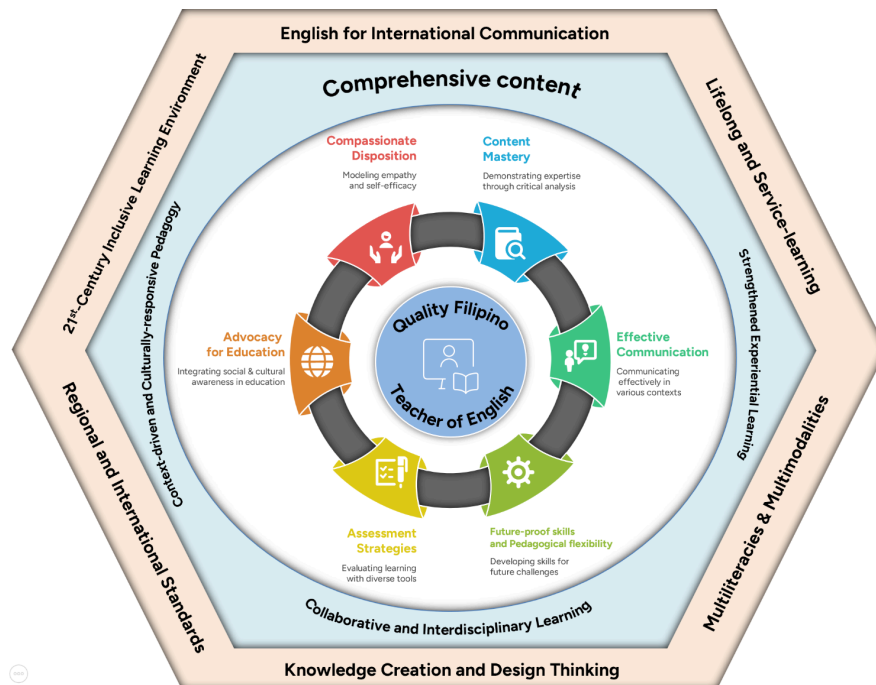
- Alternative Learning System
- Literacy Education
- Indigenous Peoples Education
- Islamic Education
- Multigrade Education
- Special Needs and Inclusive Education

5.2 Program Description and Framework of the BEd Specializations

5.2.1 Bachelor of Education Major in ENGLISH

The Bachelor of Education Major in English (BEd English) program is designed to prepare pre-service teachers with strong linguistic, literary, assessment, research, and pedagogical foundations anchored in both global and Philippine contexts. The program equips pre-service teachers to teach English with competence, creativity, and cultural sensitivity in diverse, multilingual classrooms. Courses span from English grammar, world and Philippine literatures, theories of language acquisition, and research in language and literature to practical training in curriculum design, materials development, and technology integration. Pre-service teachers of English are trained to develop critical thinking, content literacy, and 21st-century teaching skills while engaging in research and reflective practice. With a balance of theory, practice, and research, the program develops critical, creative, compassionate, future-ready educators who can advance language, literature, and literacy education and contribute to nation-building.

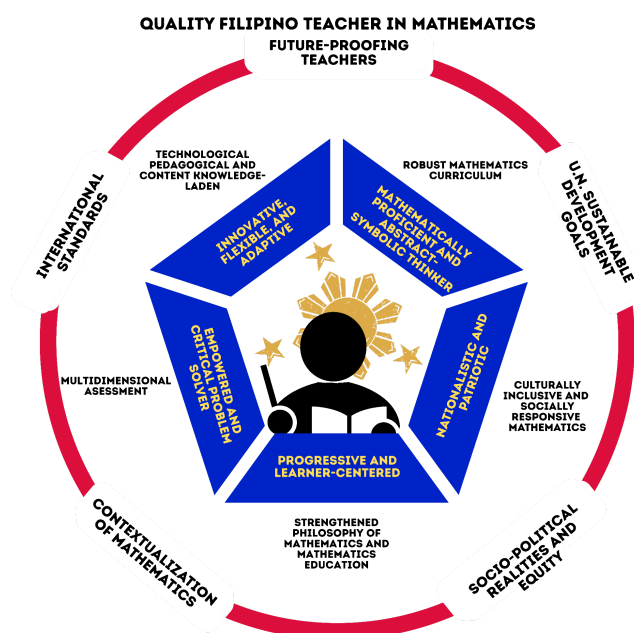
BEd ENGLISH Program Framework



5.2.3 Bachelor of Education Major in MATHEMATICS

The Bachelor of Education Major in Mathematics (BEd Mathematics) curriculum has a mathematics component that is robust, culturally inclusive, and socially responsive, combined with a strengthened philosophy of mathematics education. It is designed to develop mathematics teachers who are not only mathematically proficient and critical problem solvers, but also innovative, flexible, dynamic, and progressive. Graduates of this program will be equipped to create a learner-centered environment and to apply multidimensional assessment strategies in mathematics, both aided by technology. These teachers will be nationalistic and patriotic, demonstrating how mathematics is a powerful tool alongside the sciences, for understanding and solving important problems and issues, thereby contributing to nation-building.

BEd MATHEMATICS Program Framework



This framework for the Mathematics program envisions the Quality Filipino Teacher in Mathematics at its core, shaped by drivers that demand future-proofing, alignment with the SDGs, contextualization in Filipino culture, socio-political equity, and global benchmarking. These drivers are realized through curriculum features that ensure rigor and coherence, technology-integrated pedagogy (TPACK), a strengthened philosophy of mathematics education that builds teacher pride, multidimensional assessment, and culturally inclusive and socially responsive mathematics. Together, these produce outcomes where teachers are nationalistic and learner-centered, mathematically proficient and abstract thinkers, empowered problem-solvers, and innovative, flexible, and adaptive educators. In unison, the framework guarantees that Filipino mathematics teachers are not only globally competitive but also culturally grounded, socially responsive, and committed to transformative nation-building.

5.2.4 Bachelor of Education with Majorship in the SCIENCES

A. Bachelor of Education Major in GENERAL SCIENCE

The Bachelor of Education major in General Science (BEd General Science) course is designed to foster scientific literacy and develop foundational competence across key disciplines, including chemistry, physics, earth science, and biology. Emphasizing a comprehensive approach, the course addresses scientific vocabulary development and

reading comprehension, equipping pre-service teachers with essential tools to advance their science education and cultivate a deeper understanding of the natural world. Through this foundational exploration, pre-service teachers build a broad base of scientific literacy, preparing them for further studies and informed engagement with scientific issues.

B. Bachelor of Education Major in BIOLOGICAL SCIENCE

This Bachelor of Education major in Biological Science (BEd Biological Science) program cultivates highly competent, ethical, and innovative Filipino science teachers. It integrates mastery of scientific concepts with 21st-century pedagogies, emphasizing inquiry-based learning, technology integration, and socio-emotional competence. The curriculum is designed to produce teachers who can design inclusive, culturally responsive learning experiences and diverse assessments. Graduates of the program will be committed to lifelong professional development, ethical practices, and inspiring future generations to engage deeply with Biology, addressing both current educational challenges and future global needs.

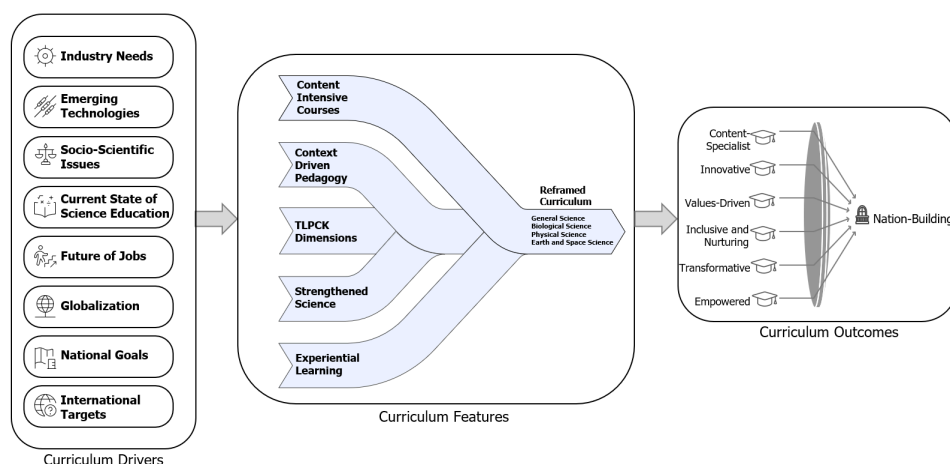
C. Bachelor of Education Major in PHYSICAL SCIENCE

The Bachelor of Education major in Physical Science (BEd Physical Science) equips Filipino science teachers with strong disciplinary knowledge in physics and chemistry, combined with inquiry-based and 21st-century pedagogies. The program is designed to produce teachers who are scientifically literate, values-aligned, digitally fluent, and designers of inclusive, culturally relevant, and engaging learning experiences. Graduates of this program are envisioned as contemplative, ethical, and transformational educators who encourage curiosity, critical thinking, and accountability in exploring the physical world.

D. Bachelor of Education Major in EARTH AND SPACE SCIENCE

The Bachelor of Education major in Earth and Space Science (BEd Earth and Space Science) program combines rigorous content knowledge, context, and experiential learning. The program offers specialization courses that significantly augment pre-service teachers' fundamental earth and space science knowledge through fieldworks and laboratory investigations. The program is meticulously designed to produce highly qualified science teachers who possess a sophisticated understanding of Earth as a planet, enabling them to evaluate and analyze the complex impacts of human activities on earth systems. Furthermore, the program envisions developing transformative educators who demonstrate exceptional ability to utilize their comprehensive knowledge of earth and space sciences to cultivate in their students a deeper appreciation of Earth and its processes, foster genuine care for the planet, and inspire the next generation to become responsible Filipinos equipped with the scientific literacy necessary to address contemporary environmental challenges.

Program Framework



This curriculum framework is a forward-looking, industry-driven model designed to transform science

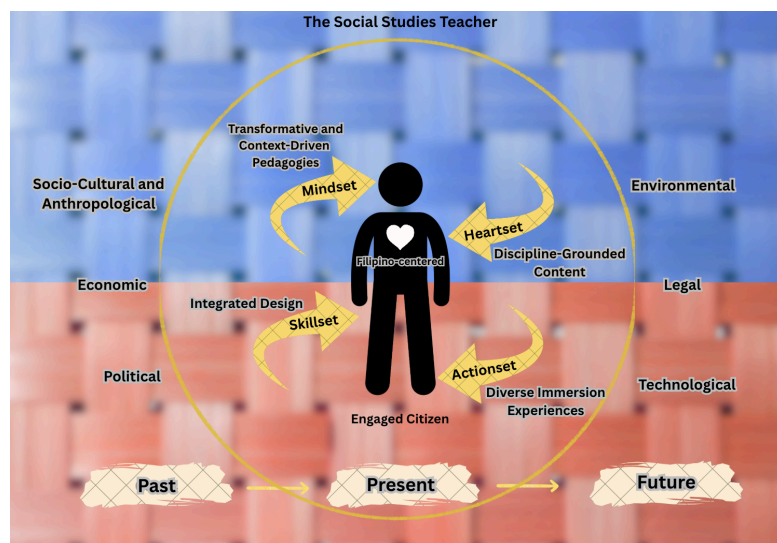
education. It is built upon key external drivers, including Industry Needs, Emerging Technologies, Socio-Scientific Issues, and the Future of Jobs, ensuring its relevance. The core of the framework focuses on integrating technology with contextual knowledge (IT/CK Dimensions) to enhance learning outcomes. It aims to produce graduates who are content specialists, innovative, values-driven, inclusive and nurturing, transformative, empowered, nation-builders, digitally fluent, and intellectually curious. The structure is designed to be transformative, moving from traditional content delivery towards fostering the skills needed for sustainable market control and global citizenship.

5.2.5 Bachelor of Education Major in SOCIAL STUDIES

The Bachelor of Education Major in Social Studies (BEd Social Studies) is an outcomes-based degree program that prepares future teachers as engaged citizens and transformative educators who embody a deep and abiding love for the Philippines. Anchored on the goals of democratic participation, nation-building, sustainable development, and global citizenship, the program cultivates teachers who integrate disciplinary expertise, ethical commitment, and civic purpose in fostering civic competence and social responsibility among learners. Guided by their love of country, graduates are equipped to interpret the Filipino experience with historical depth, cultural sensitivity, and global awareness. They develop a broad and integrative understanding of the social sciences, apply inclusive and inquiry-based pedagogies, and demonstrate technological agility and research competence to promote critical, ethical, and participatory learning that strengthens democracy and sustains national development.

Available to Pre-service teachers as well are specialization certificates in fields such as, but not limited to, Gender and Development, Global Citizenship Education, Peace and Human Rights Education, or Local History and Heritage. This flexibility enables institutions to align offerings with local and emerging educational priorities while deepening graduates' expertise in priority areas of practice.

BEd SOCIAL STUDIES Program Framework



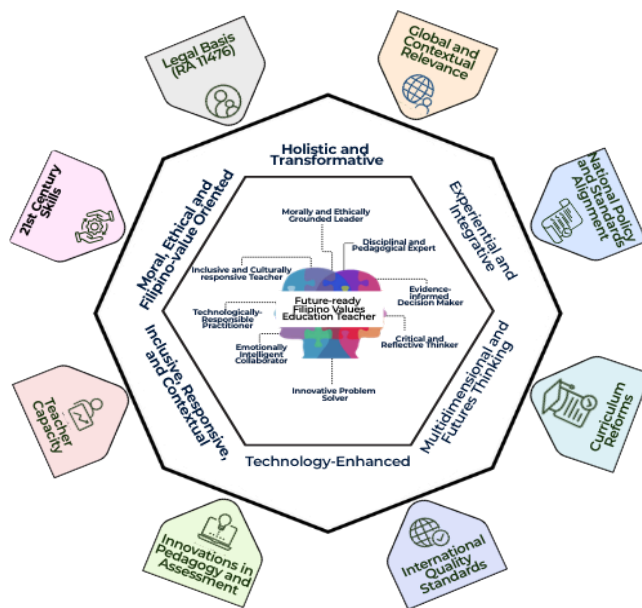
The Bachelor of Education Major in Social Studies Curriculum Framework envisions the preparation of teachers as nation-builders, culture-bearers, and transformative educators who cultivate an informed, participatory, and critically minded citizenry. It is a Filipino-centered curriculum that views knowledge, experience, and reality through the lens of the Filipino condition and locates learning within the nation's historical, cultural, and social contexts. Anchored on the goals of education for sustainable development, democratic participation, and global citizenship, the framework positions Social Studies as an interdisciplinary field drawing from history, geography, economics, political science, sociology, and anthropology, unified by its central purpose of cultivating civic competence

The image of the framework draws inspiration from the Filipino banig—a symbol of weaving, interconnectedness, and cultural rootedness. It portrays the Social Studies teacher as a weaver and storyteller of the Filipino narrative, interlacing strands of knowledge, experience, and identity drawn from the past, present, and imagined future. The metaphor embodies the curriculum's reorientation toward contextualized meaning-making, where Philippine realities, communities, and cultural values form the center of learning. Like the banig, each thread contributes to the strength and coherence of the whole. The act of weaving signifies the teacher's task of integrating knowledge with values, contextual realities with aspirations, and individual learning with collective purpose.

5.2.6 Bachelor of Education Major in VALUES EDUCATION

The Bachelor of Education major in Values Education (BEd Values Education) is a pre-service teacher education program designed to prepare future-ready and transformative educators who are morally and ethically grounded, inclusive and culturally responsive, innovative problem solvers, critical and reflective thinkers, technologically responsive, evidence-informed, and committed to nation-building. Anchored on discipline-specific principles, emerging practices, local contexts, and global standards, the program holistically responds to the demands of contemporary and future realities while upholding the aspirations of the Filipino nation. It equips pre-service teachers with disciplinary expertise and pedagogical competence in Values Education, cultivating higher-order thinking, socio-emotional intelligence, and digital literacy. Students are trained to implement inclusive, responsive, research-based, and future-ready approaches to values formation through transformative pedagogies that integrate critical literacy, peace education, socio-emotional learning, ecological ethics, and school-community collaboration. Ultimately, the BEd Values Education produces educators who are not only competent teachers but also nation-builders and global citizens who uphold Filipino identity, values, and aspirations, and are catalysts of transformative education for the common good.

BEd VALUES EDUCATION Program Framework



The *Reframed* Bachelor of Education Major in Values Education Curriculum Framework is anchored on the integration of discipline-specific principles, emerging practices, and graduate outcomes that holistically responds to the demands of the 21st century, the aspirations of the Filipino nation, and global standards. Central to this framework is the commitment to the formation of a strong Filipino identity, one that is deeply rooted in the country's cultural heritage, civic responsibility, moral traditions, and collective vision for national development, and responsive to changing global issues and realities.

At its core, the framework aims to produce a values educator who advances holistic and transformative values education through an inclusive, responsive, and globally and contextually

relevant pedagogy. The curriculum emphasizes critical thinking, problem-solving, and social responsibility, for the cultivation of Filipino values, cultural sensitivity, and bayanihan spirit integral to lifelong learning, transformative education, and nation-building. The program has legal basis as mandated by RA 11476 (The GMRC and Values Education Act). It is firmly aligned with policies, standards, and reforms mandated by CHED, DepEd, and international benchmarks (e.g., PISA, AQF, PPST), while ensuring that the distinct Filipino worldview remains central to its orientation.

The curriculum features highlight a holistic and transformative orientation, combining a whole-school approach, experiential and integrative pedagogies, moral and ethical grounding, and Filipino value-based education as its cornerstone. It champions critical, creative, and evaluative thinking through higher-order, multidimensional and futures thinking, while being responsive and contextual, ensuring cultural and social attunement to the Filipino learner. Furthermore, the framework is technology-enhanced, preparing future educators to harness digital and emerging tools for innovative teaching and assessment, while maintaining a strong commitment to the preservation and promotion of Filipino identity in the digital age.

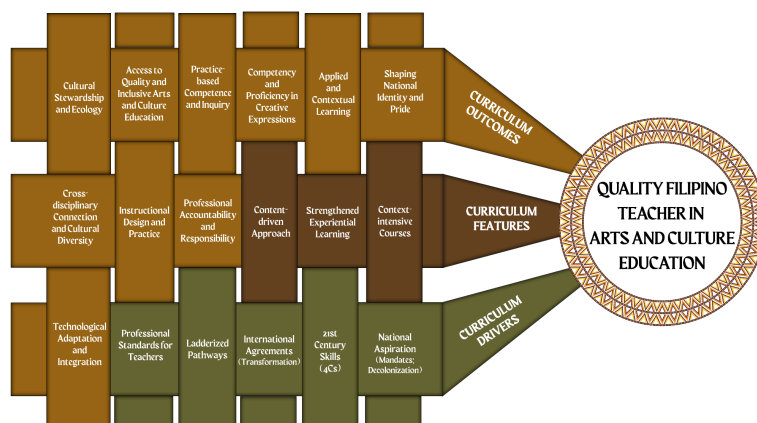
Graduates of the *reframed* program are envisioned as ethically grounded leaders, disciplinary and pedagogical experts, and evidence-informed decision makers. They are prepared to be critical and reflective thinkers, innovative problem-solvers, emotionally intelligent collaborators, and technologically responsible practitioners. More importantly, they embody the core values of social responsibility, *makatao*, *maka-Diyos*, *makakalikasan*, at *makabansa*, reflecting a deep sense of national pride and commitment to the Filipino identity. They are envisioned as inclusive and culturally responsive educators, intellectually curious professionals, and holistic thinkers who can engage both local and global communities with integrity and resilience.

Ultimately, this curriculum framework seeks to produce transformative educators and peace advocates who are not only capable of fostering resilience, inclusivity, ethical leadership, and sustainable development, but who also serve as molders and champions of Filipino identity, values, and aspirations within the Philippine educational landscape and the wider global community.

5.2.7 Bachelor of Education Major in ARTS AND CULTURE EDUCATION

The Bachelor of Education major in Arts and Culture Education (BEd Arts and Culture Education) is a multi and interdisciplinary program that encompasses the study and integration of artistic expressions and practices in the field of dance, music, drama, folk arts, media arts, visual arts, and others, with cultural knowledge to foster creativity, innovation, expressive communication, cultural literacy, and sustainable development by learning about, in, with, and through the arts. It responds to the needs of pre-service teachers in positioning arts and culture as an educational tool, an approach/pedagogy, and a field of study, research, and practice. The program is designed to develop graduates to teach for the Key Stage 2 and 3, and the specialized programs with the necessary knowledge, skills, values, and attitudes that will enable them to expand arts and culture education for learning and teaching, as well as to open up platforms for the empowering role of the arts for social change and transformation.

BEd ARTS AND CULTURE EDUCATION Program Framework



The program framework for the Bachelor of Education major in Arts and Culture Education is designed in an interweaving pattern to signify the dynamic integration of curriculum drivers, features, and outcomes toward the formation of a Quality Filipino Teacher in Arts and Culture Education. Driven by national aspirations, international commitments, and professional standards, the framework advances curriculum features that promote content-intensive courses, context-driven pedagogy, and strengthened experiential learning. These, in turn, cultivate outcomes that embody cultural literacy, ethical professionalism, creativity, responsiveness, adaptability, and artistic competence. The interwoven structure underscores the inseparability of these components in producing transformative educators who can advance arts and culture education in the Philippines.

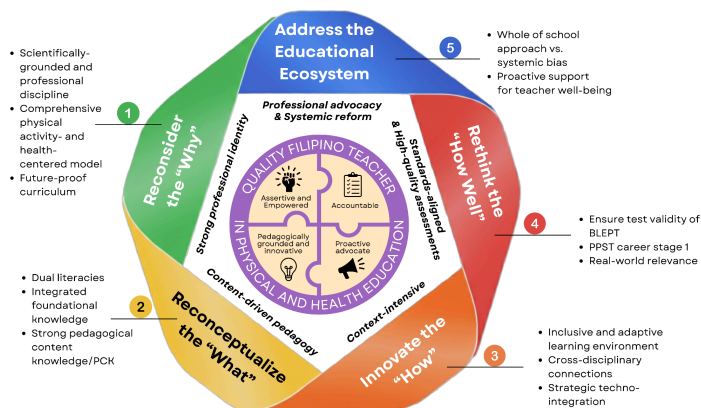
5.2.8 Bachelor of Education Major in PHYSICAL AND HEALTH EDUCATION

The Bachelor of Education Major in Physical and Health Education (BEd Physical and Health Education) equips pre-service teachers with real-world competencies for the promotion of lifelong physical and health literacies. Physical literacy fosters a lifelong commitment to valuing and finding purpose in movement, enabling individuals to safely and sustainably participate in and access physical activity throughout their lives. Health literacy empowers individuals to navigate complex health information and health care systems, make informed decisions, and engage in behaviors that promote positive health outcomes for themselves and others. The seamless integration of these two literacies is achieved through holistic development. This involves experiential learning in the acquisition and refinement of a broad range of movement skills, applying movement concepts, and developing dispositions for lifelong participation (physical literacy). Simultaneously, the personal, behavioral, social and cognitive skills necessary for researching, analyzing, applying and evaluating information to take action (i.e., health literacy) are practiced. In short, these are personal and community assets that are developed, refined and valued together to enhance active living and lifelong wellbeing.

As facilitators of transformative learning, pre-service teachers can effectively engage learners in critical inquiry and problem-solving to address key issues and challenges affecting health and wellbeing at the personal and community levels. They too are prepared to advocate for PHED, create and deliver high-quality, evidence-based programs based on their mastery of the subject matter and pedagogical content knowledge, and guide future generations in their journey toward lifelong well-being. Thus, graduates possess the pedagogical, scientific, and practical skills necessary to effectively teach Physical and Health Education across all educational levels.

Core program features include a robust interdisciplinary curriculum that integrates theory and practice, offering specialized courses grounded in the biophysical, sociocultural, and behavioral sciences, reinforced by experiential and hands-on training throughout the program. General requirements include a mandatory, supervised teaching practice and essential community engagement projects focused on solving complex health challenges and promoting active living within local communities. A key component is the integration of micro-credentialing pathways in specialized areas (e.g., First Aid/CPR, sport-specific certifications in officiating and coaching), enhancing graduates' professional marketability and deepening their specialization.

BEd PHYSICAL AND HEALTH EDUCATION Program Framework



Facing issues of relevance, professional identity, and an academic bias that undervalues holistic development, this framework redefines the Bachelor of Education Major in Physical and Health Education (BEd PHEd) by elevating its purpose from a focus on mere physical skills to a holistic, science-based, and student-centered discipline.

This reconceptualization advocates for building a strong professional identity through a comprehensive approach that prioritizes physical and health literacies over athletic performance. It blends subject matter expertise with pedagogy (PCK) and strategically integrates technology and cross-disciplinary connections.

Furthermore, the framework calls for innovating teaching methods to create inclusive learning environments using constructivist and developmentally appropriate practices. To ensure quality and address issues of licensure exam validity and teacher competence, it emphasizes authentic, standards-based assessments that prepare physical and health educators for real-world practice.

Ultimately, the goal is to proactively address the undervaluation of Physical and Health Education across all educational levels and support teacher well-being, equipping graduates with a strong professional identity and the tools to future-proof the curriculum against evolving societal challenges. As a result, the *reframed* BEd PHEd program envisions a Quality Filipino Teacher in Physical and Health Education who is:

- Assertive and empowered, demonstrating a holistic mastery of the subject matter.
- Pedagogically grounded and innovative, blending expertise with forward-thinking and strategic teaching methods.
- Accountable, with a deep sense of responsibility for their practice and others' well-being.
- Proactive advocate, consistently championing the profession and addressing future needs.

Section 6. Program Outcomes

The minimum standards for the BEd Program are expressed in the following set of learning outcomes:

6.1 Common to all programs in all types of institutions

The graduates have the ability to:

- articulate and discuss the latest developments in the specific field of practice. (PQF level 6 descriptor)
- effectively communicate in English and Filipino, both orally and in writing
- work effectively and collaboratively with a substantial degree of independence in multi-disciplinary and multi-cultural teams. (PQF level 6 descriptor)
- act in recognition of professional, social, and ethical responsibility
- preserve and promote "*Filipino historical and cultural heritage*" (based on RA 7722)

6.2 Common to the discipline (Teacher Education)

- Demonstrate depth and mastery of competencies in the area of specialization.
- Analyze contexts, considerations, and challenges that influence teaching and learning

- through the lenses of educational foundations and allied disciplines.
- c. Design innovative, inclusive, and adaptive learning spaces and experiences that connect theory and practice in 21st century teaching and learning.
 - d. Employ technology-supported strategies that are innovative, appropriate, ethical, and sustainable towards inclusive learner experiences.
 - e. Construct a variety of appropriate traditional and authentic assessments to enhance teaching and learning.
 - f. Conduct research initiatives directed towards enhancing teaching and learning.
 - g. Engage in continuous personal and professional development that foster community involvement and lifelong learning.
 - h. Cultivate teacher identity, agency, well-being, and resilience through meaningful connections, self-care practices, and strong commitment to the ethical standards of the profession.

6.3 Specific to the specializations in the Bachelor of Education program

6.3.1 Bachelor of Education Major in ENGLISH

- a. Demonstrate content mastery in English language and literature through critical analysis, application, cultural appreciation, and innovative instruction.
- b. Communicate clearly and appropriately in oral, written, and multimodal communication, responsive to varied contexts and audiences
- c. Apply transferable future-proof competencies, multiliteracies, research skills, and pedagogical flexibility
- d. Design, implement, and evaluate varied, reliable, and culturally responsive assessment tools and strategies in language and literature education to monitor learner learning, provide feedback, and inform instruction in diverse and multilingual contexts.
- e. Promote culturally responsive and diversity inclusive interdisciplinary approaches in English language and literature education.
- f. Model compassionate disposition and self-efficacy in teaching English language and literature.

6.3.2 Batsilyer ng Edukasyon Medyor sa FILIPINO

- a. Naipamamalas ang mapanuri at mapagnilay na pag-unawa at pagkatuto sa mga batayang kaalaman sa Filipino.
- b. Nakapagpapalano ng mga karanasang pampagkatuto gamit ang iba't ibang dulog at metodo na angkop sa kalikasan ng mga mag-aaral.
- c. Nakapipili o nakapagdidisenyo ng mga kagamitang panturo at pampagkatuto na lumilining ng layong kasanayang pampagkatuto.
- d. Nakalilikha ng mga iba't ibang anyo ng pagtataya na lumilining ng layong kasanayang pampagkatuto.
- e. Nakapagsasagawa ng makabuluhang pananaliksik na makapagpapabuti ng kalidad ng edukasyon sa Filipino.
- f. Nakikibahagi sa lokal, nasyonal at global na palitan ng kaalaman, kasanayan, at kaugalian tungo sa kaunlarang panglarang at panlipunan.

6.3.3 Bachelor of Education Major in MATHEMATICS

- a. Exhibit competence in mathematical concepts and procedures.
- b. Exhibit proficiency in relating mathematics within and across other curricular areas.
- c. Manifest meaningful and comprehensive technological pedagogical content knowledge (TPACK) of mathematics.
- d. Demonstrate competence in designing, constructing, and utilizing different forms of assessment in mathematics.
- e. Demonstrate proficiency in problem-solving by solving and creating routine, non-routine, and real-life problems with different levels of complexity.
- f. Use effectively appropriate approaches, methods, strategies, and techniques in teaching mathematics including manipulative materials and technological tools.
- g. Appreciate mathematics as an opportunity for research, creative work, moments of discovery, and gaining insights of the world guided by Filipino values, among others.
- h. Develop and exercise a strong professional identity and agency as a Filipino mathematics teacher, grounded in integrity, reflective practice, and ethics.

6.3.4 Bachelor of Education Major in GENERAL SCIENCE

- a. Demonstrate mastery of scientific concepts and principles.
- b. Apply science process skills in teaching and learning.
- c. Utilize inquiry-based and 21st-century pedagogies in teaching science.

- d. Utilize appropriate instructional resources and assessments, considering the diversity of learners.
- e. Integrate technologies to enhance the teaching of science.
- f. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.

6.3.5 Bachelor of Education Major in BIOLOGICAL SCIENCE

- a. Demonstrate mastery of scientific concepts and principles.
- b. Apply science process skills in teaching and learning.
- c. Utilize inquiry-based and 21st-century pedagogies in teaching science.
- d. Utilize appropriate instructional resources and assessments, considering the diversity of learners.
- e. Integrate technologies to enhance the teaching of science.
- f. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.
- g. Demonstrate application of biological concepts and principles to real-life situations.
- h. Integrate advanced knowledge, emerging technologies, and innovations in teaching Biology.

6.3.6 Bachelor of Education Major in PHYSICAL SCIENCE

- a. Demonstrate mastery of scientific concepts and principles.
- b. Apply science process skills in teaching and learning.
- c. Utilize inquiry-based and 21st-century pedagogies in teaching science.
- d. Utilize appropriate instructional resources and assessments, considering the diversity of learners.
- e. Integrate technologies to enhance the teaching of science.
- f. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.
- g. Develop an empowered sense of professionalism to make an impactful contribution in Physical Science.
- h. Integrate advanced knowledge, emerging technologies, and innovations in teaching Physical Science.

6.3.7 Bachelor of Education Major in EARTH AND SPACE SCIENCE

- a. Demonstrate mastery of scientific concepts and principles.
- b. Apply science process skills in teaching and learning.
- c. Utilize inquiry-based and 21st-century pedagogies in teaching science.
- d. Utilize appropriate instructional resources and assessments, considering the diversity of learners.
- e. Integrate technologies to enhance the teaching of science.
- f. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.
- g. Develop a deeper understanding of Earth as a system and a planet.
- h. Integrate appropriate technologies and innovative approaches in teaching Earth and Space Science.

6.3.8 Bachelor of Education Major in SOCIAL STUDIES

- a. Demonstrates broad, coherent, and integrative knowledge of the core social science disciplines—history, geography, economics, political science, sociology, and anthropology—as foundations for specialized and independent Social Studies instruction.
- b. Integrates diverse local, global, and Indigenous perspectives into Social Studies instruction to foster intercultural understanding, cultural responsiveness, and inclusive global citizenship.
- c. Critically applies sociohistorical and cultural frameworks to analyze and interpret contemporary social issues, integrating findings into meaningful and inquiry-based classroom instruction.
- d. Designs and implements inclusive, safe, and adaptive learning experiences that address learner diversity and connect Social Studies with real-world issues and other disciplines, demonstrating creativity, initiative, and professional responsibility in diverse educational settings.
- e. Integrates and creates digital learning resources to enhance learner engagement, digital literacy, and technological agility in Social Studies teaching and learning.
- f. Designs and uses varied traditional, authentic, and performance-based assessments, and communicates evidence of learning through constructive feedback that promotes student progress and accountability for outcomes.
- g. Conducts classroom-based and discipline-based research using diverse methodologies to

generate, analyze, and apply insights that improve and innovate Social Studies teaching and learning.

- h. Engages in civic, community, and nation-building initiatives that advance peace education, global citizenship, and sustainable development through participatory and ethical action.
- i. Designs and applies integrative curriculum frameworks that connect Social Studies with other learning areas such as Mathematics, Science, Physical Education, and the Arts to promote holistic, relevant, and life-centered education.
- j. Demonstrates integrity, inclusivity, and accountability in all professional practices while cultivating a reflective, resilient, and collaborative teacher identity committed to lifelong learning and learner well-being.

6.3.9 Bachelor of Education Major in VALUES EDUCATION

- a. Demonstrate deep philosophical, spiritual, psychological, socio-emotional, cultural, interdisciplinary, and moral-ethical grounding in values education that is anchored on Filipino identity and responsive to diverse learning needs.
- b. Exhibit contextual and critical understanding of values education framework, concepts, and pedagogy aligned with revised K to 10 GMRC and VE Curriculum, SHS reforms, national policies, and international frameworks.
- c. Demonstrate Filipino virtues, civic responsibility, intercultural understanding, and global citizenship, embodying 21st-century competencies and futures-oriented perspectives.
- d. Apply critical thinking, community of inquiry, restorative practice, and sustainability principles in values and peace education through school-community advocacy and other programs.
- e. Employ varied, evidence-based, technology-enhanced (including AI and emerging tools), and inclusive pedagogical approaches and learning resources to foster character education, moral reasoning, and ethical decision-making.
- f. Demonstrate competence in applying culturally responsive, learner-centered, and equity-focused strategies (e.g. Indigenous Peoples Education, Islamic Education, Faith-based Education, ALS, and special needs education, among others) in pedagogy, learning resources, and assessment for transformative values education.
- g. Demonstrate competence in conducting values education research that addresses communitarian, national, and global issues in values education.
- h. Utilize research-driven data and findings to enhance instructional practices, curriculum design, advocacy programs, and policy development for improved learning outcomes.
- i. Practice reflective, compassionate, and values-driven teaching leadership that promotes human dignity, inclusion, environmental ethics and sustainability, social justice, and ethical practice in diverse learning environments.
- j. Implement whole-school and community-based initiatives that advocate for values and peace education, intercultural understanding, and holistic learner development aligned with communitarian, national, and global aspirations.

6.3.10 Bachelor of Education Major in ARTS AND CULTURE EDUCATION

- a. Advocate national identity and patriotism through evidence-based educational, cultural, and artistic practices derived from Filipino history and heritage.
- b. Applies creative, meta-creative, and innovative skills in education across various artistic cultural expressions for educational and community learning.
- c. Develops inclusive, contextually relevant, and culturally grounded learning experiences anchored on the meanings and values of creativity in changing life-worlds.
- d. Practice professional and ethical teaching and artistic standards sensitive to the changing local, national, and global realities.
- e. Engages in reflexive teaching and artistic practices aligned with respectful cultural representation in artistic expressions, and research
- f. Advocates sustainability through collaborative arts and culture education, environmental consciousness, heritage conservation, and community resilience with artists, educators, cultural workers, and communities.
- g. Applies sound pedagogical, curricular, and instructional principles in planning, implementing, and assessing arts-integrated and culture-based education practices.
- h. Adapts appropriate digital tools and emerging technologies in artistic expression, cultural documentation, and creative learning environments.
- i. Engages in practice-based research and innovation in arts and culture for the benefit of local communities and the evolving field of arts and culture education.
- j. Empowers learners and communities through artistically and culturally enriched education, fostering creative and critical thinking, empathy, and lifelong learning.

6.3.11 Bachelor of Education Major in PHYSICAL AND HEALTH EDUCATION

- a. Apply the scientific and theoretical knowledge from Physical and Health Education,

- exercise and sports sciences, and public health to effectively and continuously adapt pedagogical practices in Physical and Health Education.
- b. Proactively advocate for the Physical and Health Education profession.
- c. Exhibit mastery of the subject matter and pedagogical content knowledge for effective teaching and learning experiences.
- d. Manage safe and effective physical activity and health programs responsive to the diverse needs and abilities of the learners, the capacities of the school and the community.
- e. Critically examine the curriculum, instruction and assessments, and execute actionable insights.
- f. Demonstrate digital literacy in teaching, facilitating learning, and in the conduct of assessments.

6.4 Common to graduates of a horizontal type of institution as defined in CMO 46, 2012

- a. Graduates of professional institutions demonstrate service orientation in their respective professions
- b. Graduates of colleges are qualified for various types of employment and participate in development activities and public discourses, particularly in response to the needs of the communities they serve
- c. Graduates of universities contribute to the generation of new knowledge by participating in various research and development projects

Moreover, all graduates of public and private higher education institutions must have the competencies to support national, regional and local development plans. Furthermore, they may adopt mission-related program outcomes that are not included in the minimum set of learning outcomes.

Section 7. Performance Indicators for Bachelor of Education

7.1 Bachelor of Education Major in ENGLISH

Program Outcomes	Performance Indicators
1. Demonstrate content mastery in English language and literature through critical analysis, application, cultural appreciation, and innovative instruction.	1.1 Analyze literary texts from Philippine, Asian, and World literature using appropriate critical theories (e.g., formalism, post-colonialism, feminism). 1.2 Examine phonological, morphological, syntactic, and semantic features of the English language to demonstrate how language works, how learners learn it, and how meaning is constructed. 1.3 Synthesize information from multiple academic sources to construct a coherent argument on a contemporary issue in English language studies. 1.4 Apply principles of language acquisition and learning in designing learning plans for diverse school learners. 1.5 Integrate the relationship of language, literature, culture, and society in the teaching-learning process.
2. Communicate clearly and appropriately in oral, written, and multimodal communication, responsive to varied contexts and audiences.	2.1 Produce coherent and appropriate texts in oral, written, and multimodal formats. 2.2 Use appropriate communication style, register, tone, and strategies to varied audiences and professional contexts.
3. Apply transferable future-proof competencies, multiliteracies, research skills, and pedagogical flexibility.	3.1 Develop culturally responsive English teaching strategies integrating Filipino values and learner diversity, supported by relevant teaching modules or case studies. 3.2 Conduct evidence-based research in English language teaching and literary studies. 3.3 Produce effective multimodal, differentiated learning plans and instructional materials that integrate visual, auditory, and textual elements to facilitate language learning.

	3.4 Integrate appropriate technology-enhanced tools and resources into lesson implementation to enhance student engagement and achieve specific language and literature learning outcomes. 3.5 Employ multiple literacies and multimodal strategies to design, deliver, and assess meaningful English language, literacy, and literature learning experiences.
4. Design, implement, and evaluate varied, reliable, and culturally responsive assessment tools and strategies in language and literature education to monitor student learning, provide feedback, and inform instruction in diverse and multilingual contexts.	4.1 Create varied assessment tasks aligned with learning outcomes in English language and literature. 4.2 Provide timely, constructive, and learner-centered feedback to improve student performance. 4.3 Analyze assessment data as a basis for evidence-based feedback to support learners' growth in language and literature. 4.4 Reflect on the overall effectiveness of an assessment strategy by evaluating its validity, reliability, and cultural fairness in relation to the specific student cohort.
5. Promote culturally responsive and diversity inclusive interdisciplinary approaches in English language and literature education.	5.1 Design and adapt curriculum materials and instructional strategies to accommodate diverse learning styles, abilities, and backgrounds. 5.2 Promote collaboration with stakeholders to support learners' academic and personal development. 5.3 Use expertise in English to influence advocacy efforts (e.g., peace, sustainable goals, service-learning, professional growth, etc.) and initiatives.
6. Model compassionate disposition and self-efficacy in teaching English language and literature.	6.1 Respond constructively to feedback and demonstrate adaptability by revising lesson plans, teaching strategies, or classroom practices, while encouraging learners to view mistakes as opportunities for growth and resilience. 6.2 Cultivate a culturally sustaining and psychologically safe learning environment by integrating diverse narratives and facilitating respectful, empathetic dialogue on sensitive topics. 6.3 Engage in a continuous cycle of critical reflection and collaborative inquiry to systematically analyze teaching practices, solve pedagogical problems with peers, and drive personal professional growth. 6.4 Differentiate instruction, assessment, and feedback with compassion and creativity to address the diverse needs of all types of learners.

7.2 Batsilyer ng Edukasyon Medyor sa FILIPINO

Program Outcomes	Performance Indicators
1. Naipamamalas ang mapanuri at mapagnilay na pag-unawa at pagkatuto sa mga batayang kaalaman sa Filipino.	1.1 Nakapagpapaliwanag ng mga pangunahing usaping teoretikal, historiko-politikal, at sosyo-kultural sa pag-unlad ng Filipino bilang isang wika. 1.2 Naiuugnay ang diglosik at multilingguwal na sitwasyong pangwika sa Pilipinas sa katayuan ng pagtuturo at pagkatuto ng wikang Filipino 1.3 Nalilinigang ang sentimental at praktikal na gamit ng Filipino bilang pangalawa at banyagang Wika.

	1.4 Nakapagsusuri ng kalagayan at kahingiang deelopmental ng mga mag-aaral ng Filipino bilang wika ng pagkatuto at pagkakakilanlan 1.5 Naipaliliwanag ang katuturan at kahalagahan ng iba't ibang anyo ng tekstong pampanitikan sa pagpapaunlad ng mga kasanayang pangwika at pangkomunikasyon 1.6 Nasusuri ang mga makabago/papausbong at multimodal na teksto sa pagpapaunlad ng mga kasanayang pangwika at pangkomunikasyon
2. Nakapagpapalano ng mga karanasang pampagkatuto gamit ang iba't ibang dulog at metodo na angkop sa kalikasan ng mga mag-aaral	2.1 Nakagagamit ng iba't ibang dulog at metodo sa pagdidisenyo ng multidisiplinaryo, eksperyensiyal, at integratibong banghay-aralin 2.2 Nakapagdidisenyo ng mga banghay-aralin na lumilinang ng mga kasanayan sa ika-21 siglo 2.3 Nailalapat ang mga prinsipyo ng peeragogy, <i>heutagogy</i>, cybergogy at iba pang inobatibong dulog sa pagdidisenyo at implementasyon ng banghay-aralin
3. Nakapipili o nakapagdidisenyo ng mga kagamitang panturo at pampagkatuto na lumilinang ng layong kasanayang pampagkatuto	3.1 Nakapipili ng mga angkop na kagamitang pampagkatuto, at kasangkapang teknolohikal na tumutugon sa pangangailangan ng mga mag-aaral 3.2 Nakagagamit ng mga angkop na estratehiya sa pagtuturo at pagkatuto na tumutugon sa layuning pampagkatuto 3.3 Nakadidisenyo ng mga angkop na kagamitang pampagtuturo na angkop sa layuning pampagkatuto at nilalaman 3.4 Nakagagamit ng teknolohiya na angkop sa layuning pampagkatuto at nilalaman
4. Nakalilikha ng mga iba't ibang anyo ng pagtataya na lumilinang ng layong kasanayang pampagkatuto	4.1 Nakapipili / nakapagdidisenyo ng mga pormatibong pagtataya upang mapahusay ang antas ng pag-unlad ng kasanayang pampagkatuto 4.2 Nakapipili/ nakapagdidisensyo ng sumatibong pagtataya upang masukat ang pagtatamo at pamantayang pampagkatuto 4.3 Nagagamit ang pagtataya bilang anyo ng fdbak sa antas ng pagpapamalas ng mga mag-aaral 4.4 Nakapagdidisenyo ng mga angkop na interbensyon upang matugunan ang mga natukoy na kahinaan at mga puwang
5. Nakapagsasagawa ng makabuluhang pananaliksik na makapagpapabuti ng kalidad ng edukasyon sa Filipino.	5.1 Naisasakatauparan ang mga prinsipyo ng sistematiko at etikal na pananaliksik 5.2 Nakapagdidisenyo ng pananaliksik na tumutugon sa piling suliraning pang-edukasyon sa Filipino 5.3 Nakapangangalap at nakapagsusuri ng kuwalitatibo at kuwantitatibong datos gamit ang mga angkop at etikal na pagdulog, pamaraan, at teknolohiya 5.4 Nakabubuo ng mga polisiya at praktis na makapagpapabuti ng kalidad ng edukasyon sa Filipino bilang bunga ng pananaliksik

	5.5 Naipalalaganap ang mga bunga ng saliksik sa pakikilahok sa publikasyon, komperensiya, kolokya, at iba pang gawaing akademiko
6. Nakikibahagi sa lokal, nasyonal at global na palitan ng kaalaman, kasanayan, at kaugalian tungo sa kaunlarang panglarang at panlipunan	6.1 Nakalalahok sa mga usaping lokalidad, lipunan at bansa sa pamamagitan ng pamamahayag pangkampus 6.2 Nakikibahagi sa mga gawaing ekstensyon sa Filipino na may kabuluhan sa pamayanan o tiyak na sektor 6.3 Nakikisangkot sa mga personal at propesyonal na gawain at kolaborasyon tungo sa pagsusulong ng Filipino

7.3 Bachelor of Education Major in MATHEMATICS

Program Outcomes	Performance Indicators
1. Exhibit competence in mathematical concepts and procedures.	1.1 Solve complex, real-world problems with mathematical rigor and multiple solution strategies. 1.2 Connect mathematical structures across different fields (algebra, calculus, statistics, geometry). 1.3 Produce outputs (papers, models, lesson exemplars) showcasing mastery and relevance of mathematics. 1.4 Apply mathematics to emerging societal issues (e.g., climate change, economics, big data).
2. Exhibit proficiency in relating mathematics within and across other curricular areas.	2.1 Establish concept mapping that relates mathematics with sciences, social studies, and arts. 2.2 Use real-world interdisciplinary tasks (STEM/STEAM projects, financial literacy modules). 2.3 Develop instructional materials showing connections between math and other fields.
3. Manifest meaningful and comprehensive technological pedagogical content knowledge (TPACK) of mathematics.	3.1 Integrate digital technologies (GeoGebra, Desmos, Python, spreadsheets) to enhance problem-solving and discovery learning. 3.2 Demonstrate skill in adapting pedagogy with technology to meet learner needs. 3.3 Critically evaluate educational technologies for appropriateness, ethics, and sustainability.
4. Demonstrate competence in designing, constructing, and utilizing different forms of assessment in mathematics.	4.1 Construct rubrics and performance tasks aligned with mathematics competencies and 21st-century skills. 4.2 Use assessment results to guide instruction and remediation. 4.3 Apply formative and summative strategies, including digital assessments. 4.4 Provide timely, constructive, and individualized feedback to students.
5. Demonstrate proficiency in problem-solving by solving and creating routine, non-routine, and real-life problems with different levels of complexity.	5.1 Solve higher-order mathematical problems using heuristics and logical reasoning. 5.2 Create mathematical problems, both routine and non-routine, with varying levels of complexity and context. 5.3 Utilize multiple solution pathways and reflective discussions of

	processes.
6. Use effectively appropriate approaches, methods, strategies, and techniques in teaching mathematics including manipulative materials and technological tools.	6.1 Demonstrate proficiency in inquiry-based, constructivist, and culturally contextualized methods including the use of manipulative materials and technological tools. 6.2 Adapt teaching strategies to address equity, inclusion, and diverse learning needs. 6.3 Reflect critically on method effectiveness through classroom action research.
7. Appreciate mathematics as an opportunity for research, creative work, moments of discovery, and gaining insights of the world guided by Filipino values, among others.	7.1 Design lessons highlighting the cultural and historical roots of mathematics (ethnomathematics, local patterns). 7.2 Promote mathematics as a tool for cultural preservation, social responsibility, justice, and sustainability. 7.3 Encourage learners to see mathematics as a source of creativity, joy, and well-being. 7.4 Demonstrate professional, personal, and community values aligned with being a "Quality Filipino Teacher."
8. Develop and exercise a strong professional identity and agency as a Filipino mathematics teacher, grounded in integrity, reflective practice, and ethics.	8.1 Demonstrates fairness and articulates a values-driven teaching philosophy aligned with the Code of Ethics for teachers. 8.2 Uses self-reflection and feedback to improve teaching strategies and learner outcomes. 8.3 Designs initiatives, adapts instruction to diverse learners, and leads collaborative projects. 8.4 Manifest self-awareness and identity and demonstrate agency and social responsibility as a mathematics teacher. 8.5 Promotes inclusive, culturally relevant math teaching and builds communities of practice.

7.4 Bachelor of Education Major in GENERAL SCIENCE

Program Outcomes	Performance Indicators
1. Demonstrate mastery of scientific concepts and principles.	1.1 Demonstrate correct application of science concepts and principles in assessments, lesson planning, materials development, and classroom interaction.
2. Apply science process skills in teaching and learning.	2.1 Demonstrate the integration of science process skills (such as observation, experimentation, and data analysis) in the design of lesson plans, instructional materials, assessments, and classroom interactions to facilitate scientific inquiry.
3. Utilize inquiry-based and 21st-century pedagogies in teaching science.	3.1 Design and implement inquiry-based lessons to foster critical thinking and problem-solving.
4. Utilize appropriate instructional resources and assessments, considering the diversity of learners.	4.1 Develop and implement culturally-relevant instructional resources for diverse learner needs.
5. Integrate technologies to enhance the teaching of science.	5.1 Incorporate technology into teaching practices by designing and implementing technology-mediated lesson plans (e.g., simulations, virtual labs, or data analysis software).
6. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.	6.1 Exhibit SEL competence and professional integrity by fostering inclusive and nurturing learning environments, making ethical and responsible decisions, and committing to continuous professional growth and lifelong learning.

7.5 Bachelor of Education Major in BIOLOGICAL SCIENCE

Program Outcomes	Performance Indicators
1. Demonstrate mastery of scientific concepts and principles.	1.1 Demonstrate correct application of science concepts and principles in assessments, lesson planning, materials development, and classroom interaction.
2. Apply science process skills in teaching and learning.	2.1 Demonstrate the integration of science process skills (such as observation, experimentation, and data analysis) in the design of lesson plans, instructional materials, assessments, and classroom interactions to facilitate scientific inquiry.
3. Utilize inquiry-based and 21st-century pedagogies in teaching science.	3.1 Design and implement inquiry-based lessons to foster critical thinking and problem-solving.
4. Utilize appropriate instructional resources and assessments, considering the diversity of learners.	4.1 Develop and implement culturally-relevant instructional resources for diverse learner needs.
5. Integrate technologies to enhance the teaching of science.	5.1 Incorporate technology into teaching practices by designing and implementing technology-mediated lesson plans (e.g., simulations, virtual labs, or data analysis software).
6. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.	6.1 Exhibit SEL competence and professional integrity by fostering inclusive and nurturing learning environments, making ethical and responsible decisions, and committing to continuous professional growth and lifelong learning.
7. Demonstrate application of biological concepts and principles to real-life situations.	7.1. Apply critical thinking and problem-solving skills to complex biological problems, demonstrating creativity and resourcefulness.
8. Integrate advanced knowledge, emerging technologies, and innovations in teaching Biology.	8.1 Pre-service teachers can reflect on their own learning and professional growth, set goals for continued development, and stay current with advances in the field.

7.6 Bachelor of Education Major in PHYSICAL SCIENCE

Program Outcomes	Performance Indicators
1. Demonstrate mastery of scientific concepts and principles.	1.1 Demonstrate correct application of science concepts and principles in assessments, lesson planning, materials development, and classroom interaction.
2. Apply science process skills in teaching and learning.	2.1 Demonstrate the integration of science process skills (such as observation, experimentation, and data analysis) in the design of lesson plans, instructional materials, assessments, and classroom interactions to facilitate scientific inquiry.
3. Utilize inquiry-based and 21st-century pedagogies in teaching science.	3.1 Design and implement inquiry-based lessons to foster critical thinking and problem-solving.
4. Utilize appropriate instructional resources and assessments, considering the diversity of learners.	4.1 Develop and implement culturally-relevant instructional resources for diverse learner needs.
5. Integrate technologies to enhance the teaching of science.	5.1 Incorporate technology into teaching practices by designing and implementing technology-mediated lesson plans (e.g., simulations, virtual labs, or data analysis software).
6. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.	6.1 Exhibit SEL competence and professional integrity by fostering inclusive and nurturing learning environments, making ethical and responsible decisions, and committing to continuous professional growth and lifelong learning.
7. Develop an empowered sense of professionalism to make an impactful contribution in Physical Science.	7.1 Build relationships with diverse community members or professionals to foster mutual learning.
8. Integrate advanced knowledge, emerging technologies, and	8.1 Ability to pivot strategies when faced with challenges (e.g., disruptive students, policy changes).

innovations in teaching Physical Science.	
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7.7 Bachelor of Education Major in EARTH AND SPACE SCIENCE

Program Outcomes	Performance Indicators
1. Demonstrate mastery of scientific concepts and principles.	1.1 Demonstrate correct application of science concepts and principles in assessments, lesson planning, materials development, and classroom interaction.
2. Apply science process skills in teaching and learning.	2.1 Demonstrate the integration of science process skills (such as observation, experimentation, and data analysis) in the design of lesson plans, instructional materials, assessments, and classroom interactions to facilitate scientific inquiry.
3. Utilize inquiry-based and 21st-century pedagogies in teaching science.	3.1 Design and implement inquiry-based lessons to foster critical thinking and problem-solving.
4. Utilize appropriate instructional resources and assessments, considering the diversity of learners.	4.1 Develop and implement culturally-relevant instructional resources for diverse learner needs.
5. Integrate technologies to enhance the teaching of science.	5.1 Incorporate technology into teaching practices by designing and implementing technology-mediated lesson plans (e.g., simulations, virtual labs, or data analysis software).
6. Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.	6.1 Exhibit SEL competence and professional integrity by fostering inclusive and nurturing learning environments, making ethical and responsible decisions, and committing to continuous professional growth and lifelong learning.
7. Develop a deeper understanding of Earth as a system and a planet.	7.1 Apply Earth and Space Science concepts to understand the interrelationships between and among Earth systems and appreciate earth as a planet.
8. Integrate appropriate technologies and innovative approaches in teaching Earth and Space Science.	8.1 Pre-service teachers demonstrate proficiency in the use of appropriate educational technologies and innovative approaches to enhance the teaching of Earth and Space Science.

7.8 Bachelor of Education Major in SOCIAL STUDIES

Program Outcomes	Performance Indicators
1. Demonstrates broad, coherent, and integrative knowledge of the core social science disciplines—history, geography, economics, political science, sociology, and anthropology—as foundations for specialized and independent Social Studies instruction.	1.1 Demonstrates mastery of key concepts, principles, and analytical frameworks from the core social sciences. 1.2 Integrates disciplinary and interdisciplinary perspectives in analyzing social realities. 1.3 Applies empirical and historical evidence in explaining Philippine and global issues. 1.4 Uses social science data, maps, and indicators to support classroom analysis and discussion. 1.5 Communicates disciplinary understanding through clear, accurate, and contextualized instruction.
2.1 Integrates diverse local, global, and Indigenous perspectives into Social Studies instruction to foster intercultural understanding, cultural responsiveness, and inclusive global citizenship	2.1.1 Designs culturally responsive lessons integrating local, global, and Indigenous perspectives. 2.1.2 Applies community-based and Indigenous knowledge in contextualizing learning. 2.1.3 Promotes inclusive and rights-based classroom dialogue that respects cultural diversity.

	2.1.4 Facilitates reflection and comparison of social and cultural perspectives to build intercultural understanding.
2.2 Critically applies sociohistorical and cultural frameworks to analyze and interpret contemporary social issues, integrating findings into meaningful and inquiry-based classroom instruction.	2.2.1 Analyzes sociohistorical evidence to explain the roots of contemporary social issues. 2.2.2 Integrates current data, trends, and case studies into discussions of local and global challenges. 2.2.3 Guides learners in evidence-based inquiry and dialogue on equity, justice, and sustainability. 2.2.4 Creates instructional resources connecting historical understanding to present civic issues.
3. Designs and implements inclusive, safe, and adaptive learning experiences that address learner diversity and connect Social Studies with real-world issues and other disciplines, demonstrating creativity, initiative, and professional responsibility in diverse educational settings.	3.1 Develops inclusive lesson plans integrating real-world issues and interdisciplinary themes. 3.2 Implements inquiry- and project-based pedagogies that promote problem solving and civic engagement. 3.3 Applies differentiated and adaptive strategies responsive to learner diversity. 3.4 Engages students in experiential or community-based learning opportunities. 3.5 Uses learner assessment data to refine instructional design and pedagogy.
4. Integrates and creates digital learning resources to enhance learner engagement, digital literacy, and technological agility in Social Studies teaching and learning.	4.1 Uses digital platforms and applications to enhance Social Studies instruction and student participation. 4.2 Designs interactive and multimedia learning materials that support diverse learning modes. 4.3 Demonstrates ethical, inclusive, and secure use of digital resources in teaching. 4.4 Guides learners in evaluating digital information and producing creative outputs.
5. Designs and uses varied traditional, authentic, and performance-based assessments, and communicates evidence of learning through constructive feedback that promotes student progress and accountability for outcomes.	5.1 Develops valid and reliable tests and performance assessments aligned with learning outcomes. 5.2 Implements authentic assessment tasks that measure understanding and application. 5.3 Employs rubrics, checklists, and learning analytics to document learner progress. 5.4 Delivers timely, equitable, and developmental feedback to improve learning performance.
6. Conducts classroom-based and discipline-based research using diverse methodologies to generate, analyze, and apply insights that improve and innovate Social Studies teaching and learning.	6.1 Identifies and articulates researchable problems in Social Studies education. 6.2 Designs and conducts research using appropriate methods and ethical standards. 6.3 Analyzes and interprets data to draw sound conclusions on teaching and learning practices. 6.4 Presents research results that inform curriculum, pedagogy, and community practice.
7.1 Engages in civic, community, and nation-building initiatives that	7.1.1 Lead or participate in civic projects advancing peace, citizenship, and sustainability goals.

advance peace education, global citizenship, and sustainable development through participatory and ethical action.	7.1.2 Integrates civic, environmental, and rights-based education into classroom practice. 7.1.3 Collaborates with peers and communities in service-learning initiatives. 7.1.4 Reflects on personal and collective contributions to community and national development.
7.2 Designs and applies integrative curriculum frameworks that connect Social Studies with other learning areas such as Mathematics, Science, Physical Education, and the Arts to promote holistic, relevant, and life-centered education.	7.2.1 Designs interdisciplinary curriculum units connecting Social Studies with other learning areas. 7.2.2 Develops integrative tasks that apply knowledge across subjects. 7.2.3 Aligns content and assessment horizontally and vertically for coherence. 7.2.4 Adapts curriculum to community contexts and learner realities.
8. Demonstrates integrity, inclusivity, and accountability in all professional practices while cultivating a reflective, resilient, and collaborative teacher identity committed to lifelong learning and learner well-being.	8.1 Upholds the ethical standards of the teaching profession in all practices. 8.2 Promotes fairness, inclusion, and respect in classroom management and assessment. 8.3 Engages in reflective and collaborative practice to enhance professional growth. 8.4 Demonstrates resilience, empathy, and accountability in advancing learner well-being and professional excellence.

7.9 Bachelor of Education Major in VALUES EDUCATION

Program Outcomes	Performance Indicators
1. Demonstrate deep philosophical, spiritual, psychological, socio-emotional, cultural, interdisciplinary, and moral-ethical grounding in values education that is anchored on Filipino identity and responsive to diverse learning needs.	1.1 Articulate major philosophical and psychological theories of values education and relate them to classroom practice. 1.2 Analyze contemporary moral-spiritual issues and Filipino cultural values and their implications for teaching diverse learners. 1.3 Integrate interdisciplinary and moral-ethical principles in decision-making and instructional practices. 1.4 Demonstrate respect and pride for Filipino identity through context-based learning activities.
2. Exhibit contextual and critical understanding of values education framework, concepts, and pedagogy aligned with revised K to 10 GMRC and VE Curriculum, SHS reforms, national policies, and international frameworks.	2.1 Demonstrate understanding of UNESCO, PISA, UN SDGs, and other global benchmarks in values education. 2.2 Align instructional plans and strategies with the K to 10 GMRC and VE curriculum and SHS reforms. 2.3 Demonstrate critical thinking of value concepts, pedagogy, curriculum, policy, and other similar activities in values education
3. Demonstrate Filipino virtues, civic responsibility, intercultural understanding, and global citizenship, embodying 21st-century competencies and futures-oriented perspectives.	3.1 Practice civic responsibility through school and community engagement. 3.2 Model Filipino virtues such as <i>pakikipagkapwa</i>, <i>bayanihan</i>, and <i>malasakit</i> in teaching and service. 3.3 Integrate intercultural perspectives and 21st century skills in lessons and classroom activities.

	3.4 Apply innovative problem-solving and futures thinking in addressing communitarian, national, and global issues
4. Apply critical thinking, community of inquiry, restorative practice, and sustainability principles in values and peace education through school-community advocacy and other programs.	4.1 Facilitate classroom and community discussions using the community of inquiry approach. 4.2 Integrate values and peace education, restorative practices, and sustainability principles in teaching and community building. 4.3 Initiate advocacy projects that promote ecological sustainability and peaceful coexistence.
5. Employ varied, evidence-based, technology-enhanced (including AI and emerging tools), and inclusive pedagogical approaches and learning resources to foster character education, moral reasoning, and ethical decision-making.	5.1 Demonstrate critical and responsible use of digital platforms, AI tools, and multimedia in values education instruction. 5.2 Design inclusive lesson plans that cater to diverse learning needs and contexts. 5.3 Apply evidence-based strategies in teaching character and values education. 5.4 Assess learners' moral-ethical reasoning and decision-making using appropriate tools.
6. Demonstrate competence in applying culturally responsive, learner-centered, and equity-focused strategies (e.g. Indigenous Peoples Education, Islamic Education, Faith-based Education, ALS, and special needs education, among others) in pedagogy, learning resources, and assessment for transformative values education.	6.1 Design culturally sensitive and context-responsive instructional materials. 6.2 Implement learner-centered and inclusive teaching and assessment strategies in diverse classrooms. 6.3 Integrate key concepts and equity-focused strategies from special advocacy programs in teaching and assessment in values education.
7. Demonstrate competence in conducting values education research that addresses communitarian, national, and global issues in values education.	7.1 Formulate research problems grounded in contemporary values education issues. 7.2 Conduct research in values education using appropriate and relevant methods. 7.3 Analyze data using valid and reliable procedures. 7.4 Produce research outputs that contribute to disciplinary knowledge and to communitarian, national, or global discourse.
8. Utilize research-driven data and findings to enhance instructional practices, curriculum design, advocacy programs, and policy development for improved learning outcomes.	8.1 Apply research findings to classroom practices. 8.2 Apply evidence-based strategies to improve curriculum implementation. 8.3 Design advocacy or extension programs informed by research results. 8.4 Engage in policy analysis and development using empirical data.
9. Practice reflective, compassionate, and values-driven teaching leadership that promotes human dignity, inclusion, environmental ethics and sustainability, social justice, and ethical practice in diverse learning environments.	9.1 Demonstrate reflective practices, showing compassion, fairness, and ethical conduct, in teaching and leadership roles. 9.2 Integrate human rights, social justice, inclusion, and environmental ethics and sustainability in teaching and community work.
10. Implement whole-school and community-based initiatives that advocate for values and peace education, intercultural understanding, and holistic learner development aligned with	10.1 Organize school-wide and community-based programs on peace and values education aligned with communitarian, national, and global aspirations. 10.2 Collaborate with community partners to implement intercultural and civic projects.

communitarian, national, and global aspirations.	10.3 Integrate holistic learner development in co-curricular and extra-curricular activities. 10.4 Evaluate the impact of whole-school and community-based initiatives on learners and stakeholders.
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7.10 Bachelor of Education Major in ARTS AND CULTURE EDUCATION

Program Outcomes	Performance Indicators
1. Advocate national identity and patriotism through evidence-based educational, cultural, and artistic practices derived from Filipino history and heritage.	1.1 Critically discusses the foundations of Philippine arts and culture in teaching. 1.2 Appropriately selects authentic Filipino cultural and artistic materials in developing instructional plans. 1.3 Design culturally responsive instructional plans that integrate Filipino history, heritage, artistic traditions, cultural preservation and safeguarding. 1.4 Produces cultural artistic works that reflect Filipino identity and values.
2. Applies creative, meta-creative, and innovative skills in education across various artistic cultural expressions for educational and community learning.	2.1 Reflects critically on the creative process to improve teaching and cultural artistic outcomes. 2.2 Utilizes creativity and meta-creative strategies in addressing instructional challenges. 2.3 Applies artistic practices proficiently in community and school settings. 2.4 Actively engages with a wide range of artistic practices and community-based cultural expressions for education purposes.
3. Develops inclusive, contextually relevant, and culturally grounded learning experiences anchored on the meanings and values of creativity in changing life-worlds.	3.1 Designs culturally responsive instructional plans tailored to diverse learners. 3.2 Facilitates inclusive and culture-based strategies responsive to learner diversity and/ or community traditions. 3.3 Incorporates local cultural contexts appropriately into instructional strategies.
4. Practice professional and ethical teaching and artistic standards sensitive to the changing local, national, and global realities.	4.1 Upholds ethical and professional standards in teaching, artistic practices, and research. 4.2 Responds adaptively to evolving educational and cultural challenges of the local, national, and global levels.
5. Engages in reflexive teaching and artistic practices aligned with respectful cultural representation in artistic expressions, and research	5.1 Reflects on personal biases and assumptions in teaching and art-making. 5.2 Ensures respectful representation and handling of cultural resources.
6. Advocates sustainability through collaborative arts and culture education, environmental consciousness, heritage conservation, and community resilience with artists, educators, cultural workers, and communities.	6.1 Implements sustainability-oriented conservation and resilience initiatives in the classroom and community 6.2 Engages in participatory activities for cultural sustainability partnerships with local cultural institutions and communities. 6.3 Co-creates sustainable educational, artistic, and cultural activities with stakeholders.
7. Applies sound pedagogical,	7.1 Designs coherent and culturally grounded instructional plans.

curricular, and instructional principles in planning, implementing, and assessing arts-integrated and culture-based education practices.	7.2 Implements effective instructional strategies for arts-integrated learning. 7.3 Uses appropriate assessment strategies for cultural and artistic learning evaluation. 7.4 Critiques curricula and educational policies using cultural/educational frameworks.
8. Adapts appropriate digital tools and emerging technologies in artistic expression, cultural documentation, and creative learning environments.	8.1 Utilizes with flexibility appropriate digital platforms and emerging technologies for artistic creation and collaboration in educational settings. 8.2 Enhances learning environments through multimedia and interactive tools.
9. Engages in practice-based research and innovation in arts and culture for the benefit of local communities and the evolving field of arts and culture education.	9.1 Conducts research activities and other creative works on arts and culture education. 9.2 Shares innovative arts and culture arts and culture education practices through research dissemination activities
10. Empowers learners and communities through artistically and culturally enriched education, fostering creative and critical thinking, empathy, and lifelong learning.	10.1 Uses transformative strategies that empower learners' creative/critical capacities. 10.2 Supports lifelong learning through inclusive, community arts education.

7.11 Bachelor of Education Major in PHYSICAL AND HEALTH EDUCATION

Program Outcomes	Performance Indicators
1. Apply the scientific and theoretical knowledge from Physical and Health Education, exercise and sports sciences, and public health to effectively and continuously adapt pedagogical practices in Physical and Health Education.	1.1 Examine complex, real-world problems in teaching and learning in Physical and Health Education. 1.2 Construct a holistic understanding of the significance of knowledge synthesized across disciplines. 1.3 Adapt complex information and ideas by moving flexibly between different perspectives and disciplinary frameworks. 1.4 Develop pedagogical practices based on new knowledge, evidence, and insights from research and professional learning communities.
2. Proactively advocate for the Physical and Health Education profession.	2.1 Regularly reflect on teaching practices by documenting insights to guide adjustments and improvements, while actively advocating for the teaching profession to influence policy and enhance professional standing. 2.2 Synthesize knowledge and insights for the use in adjustments and improvements in teaching and learning. 2.3 Engage in continuous professional development and active, healthy living.
3. Exhibit mastery of the subject matter and pedagogical content knowledge for effective teaching and learning experiences.	3.1 Accurately explain complex topics, intricate theories or principles in a clear, accessible way. 3.2 Integrate different concepts within a subject to show holistic understanding. 3.3 Analyze common errors and misconceptions to develop and implement responsive strategies.

	3.4 Apply appropriate instructional models for effective teaching and learning experiences. 3.5 Utilize a range of assessment methods for evaluation and data-driven instruction.
4. Manage safe and effective physical activity and health programs responsive to the diverse needs and abilities of the learners, the capacities of the school and the community.	4.1 Create inclusive and modified learning experiences for diverse learners to accommodate varying abilities, meet unique physical and motor development needs for successful participation in physical activities. 4.2 Integrate community resources and develop partnerships to enhance program delivery, extend its reach, and promote its sustainability.
5. Critically examine the curriculum, instruction and assessments, and execute actionable insights.	5.1 Evaluate existing curriculum models to determine their effectiveness in achieving learning outcomes and addressing diverse student needs. 5.2 Redesign lessons to align with a specific teaching philosophy or meet the needs of a particular student group. 5.3 Analyze assessment validity to ensure that all evaluations are an accurate, reliable, and equitable measure of student learning. 5.4 Develop authentic assessments that are aligned with real-world applications and provide a more holistic measure of student learning. 5.5 Provide a clear rationale for all modifications by demonstrating their direct connection to established learning outcomes or professional standards.
6. Demonstrate digital literacy in teaching, facilitating learning, and in the conduct of assessments	6.1 Use digital tools and resources safely and responsibly to enhance learning experiences, deliver engaging instruction, and conduct meaningful assessments. 6.2 Create interactive and engaging learning experiences through multimedia and digital networks.

ARTICLE V CURRICULUM

Section 8. Curriculum Components

The BEd program is composed of General Education Courses, Professional Education Courses, Specialization Courses, and Mandated Courses. Optional Certificate Program Courses are designed for pre-service teacher education programs.

8.1 Program Structure

The curriculum program structure indicates the minimum required courses and their corresponding units, as well as the total number of units per program component. Higher Education Institutions offering the BEd program may exercise flexibility in implementing the curriculum, as stipulated in Sections 4 and 12. Course descriptions are presented in the Annexes.

8.1.1 Bachelor of Education Major in ENGLISH

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	

3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd English Specialization Courses (Annex B)		48 units
1. Foundations of Linguistics for Teachers	3	
2. Language Acquisition and Learning in Multilingual Contexts	3	
3. Literatures of the Philippines, East, South, and Southeast Asia	3	
4. Structure of English	3	
5. Literatures of Africa and the Western Nations	3	
6. Campus Journalism	3	
7. Language Pedagogy and Assessment in Multicultural Contexts	3	
8. Literary Criticism	3	
9. Teaching and Assessment of Literature	3	
10. Technology-Enhanced Pedagogies in Language and Literature Instruction	3	
11. Language and Literature Research 1	3	
12. Language and Literature Research 2	3	
13. Materials Development for Language Arts and Literature	3	
14. Multimodal Communication for Teachers of English	3	
15. Language Education Curriculum	3	
16. Reading Assessment and Intervention	3	
D. Electives (any 2 of the following)		6 units
Language and Linguistics		
1. English for Specific Purposes	3	
2. Discourse Analysis	3	
3. World Englishes	3	
4. Language-in-Education Planning for Multilingual Societies	3	
Literature and Cultural Studies		
1. Stylistics	3	
2. Mythology & Folklore	3	
3. Children and Young Adult Literature	3	
4. Regional Literature	3	
Communication and Applied English		
1. Oral Communication and Performance Arts	3	
2. Business English	3	
3. Language, Media, and Communication	3	
4. Teaching Communicative Grammar	3	
E. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		48 units
D. Elective Courses		6 units
E. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.2 Batsilyer ng Edukasyon Medyor sa FILIPINO

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	

2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Filipino Specialization Courses (Annex B)		51 units
1. Batayang Kaalaman sa Wika	3	
2. Panimulang Lingguwistika	3	
3. Patakarang Pangwika at Multilinggualismo	3	
4. Ang Filipino sa Kurikulum ng Batayang Edukasyon	3	
5. Mga Obra ng Panitikang Pilipino	3	
6. Pagtuturo at Pagtataya ng mga Makrong Kasanayan sa Filipino	3	
7. Paghahanda at Ebalwasyon ng Kagamitang Panturo	3	
8. Pagtuturo ng Filipino sa mga Banyaga	3	
9. Panunuring Pampanitikan	3	
10. Pagsasalin sa Iba't Ibang Disiplina	3	
11. Malikhaing Pagsulat	3	
12. Pamamahayag Pangkampus	3	
13. Rehiyonal na Wika	3	
14. Banyagang Wika	3	
15. Pananaliksik sa Edukasyong Filipino 1	3	
16. Pananaliksik sa Edukasyong Filipino 2	3	
17. Ang Guro ng Filipino sa Kaunlarang Pampamayanan	3	
D. Elektib		3 units
1. Analisis ng Diskors	3	
2. Dulaang Filipino	3	
3. Masulong na Pagsasalin	3	
4. Kultura	3	
5. Media	3	
E. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		51 units
D. Elektib		3 units
E. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.3 Bachelor of Education Major in MATHEMATICS

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Mathematics Specialization Courses (Annex B)		63 units

1. Algebraic Thinking and Reasoning	3	
2. Geometric Thinking and Reasoning	3	
3. Discrete Mathematics	3	
4. Number Theory	3	
5. Curriculum, Contexts, Trends, and Issues in Mathematics Education	3	
6. Mathematics of Investment	3	
7. Trigonometry	3	
8. Precalculus	3	
9. Philosophy of Mathematics and Mathematics Education	3	
10. Principles and Strategies in Teaching Mathematics	3	
11. Calculus I	3	
12. Linear Algebra	3	
13. Probability and Statistics I	3	
14. Problem Posing, Problem Solving and Mathematical Investigation	3	
15. Instrumentation and Technology for Teaching and Learning in Mathematics	3	
16. Mathematics Literacy	3	
17. Calculus II	3	
18. Probability and Statistics II	3	
19. Multidimensional Assessment in Mathematics	3	
20. Sociocultural Data Analytics in Mathematics	3	
21. Research in Mathematics Education	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		63 units
D. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.4 Bachelor of Education Major in GENERAL SCIENCE

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd General Science Specialization Courses (Annex B)		74 units
Content-Intensive Courses		
1. General Biology	4	
2. General and Inorganic Chemistry	4	
3. General Physics (Mechanics and Fluids)	4	
4. Precalculus	3	
5. Earth Science	3	
6. Organic Chemistry	4	
7. Systematics and Evolution	4	
8. Thermodynamics	4	
9. Astronomy	3	
10. Biochemistry	4	

11. Electricity and Magnetism	4	
12. Cell and Molecular Biology	4	
13. Waves and Optics	4	
14. Biodiversity and Ecology	4	
Context-Intensive Courses		
15. Foundations of Science Teaching for Engaged Learning	3	
16. Research in Science Education	3	
17. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
18. Teaching Science Research and Design Thinking in Basic Education	3	
19. Education for Sustainable Development	3	
Strengthened Science Experiential Learning		
20. Designing a Transformative Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
21. Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		74 units
D. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		units

8.1.5 Bachelor of Education Major in BIOLOGICAL SCIENCE

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Biological Science Specialization Courses (Annex B)		94 units
Content-Intensive Courses		
1. General Biology	4	
2. General and Inorganic Chemistry	4	
3. General Physics (Mechanics and Fluids)	4	
4. Precalculus	3	
5. Earth Science	3	
6. Organic Chemistry	4	
7. Systematics and Evolution	4	
8. Thermodynamics	4	
9. Astronomy	3	
10. Biochemistry	4	
11. Electricity and Magnetism	4	
12. Cell and Molecular Biology	4	
13. Waves and Optics	4	
14. Biodiversity and Ecology	4	
15. Genetics	4	
16. Microbiology and Parasitology	4	
17. Animal Anatomy and Physiology	4	

18. Plant Physiology	4	
19. Biotechniques	4	
Context-Intensive Courses		
20. Foundations of Science Teaching for Engaged Learning	3	
21. Research in Science Education	3	
22. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
23. Teaching Science Research and Design Thinking in Basic Education	3	
24. Education for Sustainable Development	3	
Strengthened Science Experiential Learning		
25. Designing a Transformative Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
26. Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		94 units
D. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.6 Bachelor of Education Major in PHYSICAL SCIENCE

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Physical Science Specialization Courses (Annex B)		93 units
Content-Intensive Courses		
1. General Biology	4	
2. General and Inorganic Chemistry	4	
3. General Physics (Mechanics and Fluids)	4	
4. Precalculus	3	
5. Earth Science	3	
6. Organic Chemistry	4	
7. Systematics and Evolution	4	
8. Thermodynamics	4	
9. Astronomy	3	
10. Biochemistry	4	
11. Electricity and Magnetism	4	
12. Cell and Molecular Biology	4	
13. Waves and Optics	4	
14. Biodiversity and Ecology	4	
15. Modern Physics	3	
16. Teaching of Electronics and Robotics	4	
17. Physical Chemistry	4	
18. Green Chemistry	4	
19. Analytical Chemistry	4	

Context-Intensive Courses		
20. Foundations of Science Teaching for Engaged Learning	3	
21. Research in Science Education	3	
22. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
23. Teaching Science Research and Design Thinking in Basic Education	3	
24. Education for Sustainable Development	3	
Strengthened Science Experiential Learning		
25. Designing a Transformative Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
26. Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		units
B. Professional Education Courses		36 units
C. Specialization Courses		93 units
D. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.7 Bachelor of Education Major in EARTH AND SPACE SCIENCE

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Earth and Space Science Specialization Courses (Annex B)		94 units
Content-Intensive Courses		
1. General Biology	4	
2. General and Inorganic Chemistry	4	
3. General Physics (Mechanics and Fluids)	4	
4. Precalculus	3	
5. Earth Science	3	
6. Organic Chemistry	4	
7. Systematics and Evolution	4	
8. Thermodynamics	4	
9. Astronomy	3	
10. Biochemistry	4	
11. Electricity and Magnetism	4	
12. Cell and Molecular Biology	4	
13. Waves and Optics	4	
14. Biodiversity and Ecology	4	
15. Observational Astronomy	4	
16. Geology	4	
17. Oceanography	4	
18. Atmospheric and Climate Sciences	4	
19. Natural Hazards and Disasters	4	
Context-Intensive Courses		

20. Foundations of Science Teaching for Engaged Learning	3	
21. Research in Science Education	3	
22. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
23. Teaching Science Research and Design Thinking in Basic Education	3	
24. Education for Sustainable Development	3	
Strengthened Science Experiential Learning		
25. Designing a Transformative Classroom: Innovating Science Education Through Informal and Community Pedagogies	3	
26. Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		94 units
D. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.8 Bachelor of Education Major in SOCIAL STUDIES

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Social Studies Specialization Courses (Annex B)		48 units
1. Social Studies Foundations and the Curriculum	3	
2. Critical Perspectives on Philippine History and Nation-Building	3	
3. Geographies of the Philippines: Places, Landscapes, and Change	3	
4. Philippine Democracy, Citizenship, and the Constitution	3	
5. Microeconomic Principles and Citizenship Applications	3	
6. Southeast Asian Histories and the Philippine Experience	3	
7. Peace Education and Human Rights Education	3	
8. Asian Histories, Cultures, and Contemporary Issues	3	
9. Global Histories: Ideas, Movements, and Transformations	3	
10. Research and Creative Works in Social Studies Education	3	
11. Macroeconomics and Philippine Development	3	
12. Technology for Teaching and Learning in Social Studies	3	
13. Assessment in Social Studies	3	
14. Pedagogies in Social Studies	3	
15. Institutional Course 1	3	
16. Institutional Course 2	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units

B. Professional Education Courses	36 units
C. Specialization Courses	48 units
D. Mandated Courses (PATHFIT and NSTP)	14 units
TOTAL	_ units

8.1.9 Bachelor of Education Major in VALUES EDUCATION

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Values Education Specialization Courses (Annex B)		54 units
1. Foundations of Values Education	3	
2. The Science of Values Learning and Theories of Moral Development	3	
3. Filipino Culture, Society, and Values System	3	
4. Worldviews on Spirituality and Belief Systems	3	
5. Sustainability and Ecological Ethics	3	
6. Facilitation Skills and Group Process Techniques	3	
7. Principles and Methods in Teaching Values Education	3	
8. Values Education Curriculum for Future-ready Learners	3	
9. Technology for Teaching and Learning Values Education	3	
10. Research in Values Education 1	3	
11. Contemporary Moral Issues	3	
12. Critical Literacy and Dialogic Thinking for Peace and Transformative Education	3	
13. Assessment and Evaluation in Values Education	3	
14. Reflective Practice and Ethical Leadership in Values Education	3	
15. Development of Instructional Materials in Values Education	3	
16. Research in Values Education 2	3	
17. Values Education Beyond the Classroom: School-Community Collaboration	3	
18. Special Topics in Values Education (Examples of Special Topics:)	3	
a. Values in Islamic Education		
b. Values Integration through Guidance Services		
c. Values Education in the Age of Artificial Intelligence		
d. Social Teachings in Religion-based Values Education		
e. Climate Justice with Children and Youth		
f. Values in Persons and Family Relations Education		
g. Values Integration in Diverse and Inclusive Learning Contexts		
h. Philosophy of Tolerance and Understanding in Religious Education		
i. Values Education for Democratic Participation		
j. Social Classes and Pedagogy of Values Education		
k. Values Integration Across Disciplines		
l. Teaching Thinking for Values and Peace Education		
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		

A. General Education Courses	units
B. Professional Education Courses	36 units
C. Specialization Courses	54 units
D. Mandated Courses (PATHFIT and NSTP)	14 units
TOTAL	_ units

8.1.10 Bachelor of Education Major in ARTS AND CULTURE EDUCATION

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	
4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Arts and Culture Education Specialization Courses (Annex B)		54 units
1. Foundations of Arts and Culture Education	3	
2. Technology for Teaching and Learning in Arts and Culture Education	3	
3. Teaching General Music for Children	3	
4. Teaching Visual Arts for Children	3	
5. Teaching Dance for Children	3	
6. Teaching Theater for Children	3	
7. Perspectives in Arts and Heritage Education in Plural Societies: The Philippine Setting	3	
8. Multicultural Literacies in Arts Education	3	
9. Teaching General Music for the Youth	3	
10. Teaching Visual Arts for the Youth	3	
11. Teaching Dance for the Youth	3	
12. Teaching Theater for the Youth	3	
13. Integrative Arts Education	3	
14. Teaching Music in Specialized Programs	3	
15. Teaching Visual Arts in Specialized Programs	3	
16. Teaching Dance in Specialized Programs	3	
17. Teaching Theater in Specialized Programs	3	
18. Artistic Practice as Research	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		54 units
D. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.11 Bachelor of Education Major in PHYSICAL AND HEALTH EDUCATION

Courses	Units	Total
A. General Education Courses (Annex C)		_ units
B. Professional Education Courses (Annex A)		36 units
1. Human Growth and Development	3	
2. Foundations of Teaching and Learning	3	
3. Foundations of Special and Inclusive Education	3	

4. Theories and Approaches in Literacy Education	3	
5. Learner-Centered Teaching	3	
6. Learner Assessment	3	
7. The Teacher as a Person and as a Professional	3	
8. Principles and Practices of Homeroom Guidance	3	
9. Teaching Internship	12	
C. BEd Physical and Health Education Specialization Courses (Annex B)		63 units
Foundation Courses		
1. Historical and Philosophical Foundations of Physical and Health Education	3	
2. Biophysical Aspects of Physical and Health Education 1 (Functional Anatomy and Exercise Biomechanics)	3	
3. Biophysical Aspects of Physical and Health Education 2 (Functional Anatomy and Physiology of Health and Exercise)	3	
4. Human Behavior and Health (Individual, Social, and Cultural Factors Influencing Health Behaviors)	3	
5. Motor Learning and Development	3	
6. Teaching Physical and Health Literacy	3	
7. Research in Physical and Health Education	3	
Content-Driven Pedagogy Courses		
A. Sports/Games		
8. Game-based Pedagogy	3	
9. Philippine Traditional Sports and Games	3	
10. Sports/Games Elective, <i>any 1 of the following:</i>	3	
Teaching Invasion and Tag Games		
Teaching Net/Wall Games		
Teaching Striking/Fielding and Target Games		
Individual Performance Activities		
B. Dances		
11. Foundations of Rhythmic Activities and Dance	3	
12. Folk and Cultural Dances	3	
13. Dance Elective, <i>any 1 of the following:</i>	3	
Social and Ballroom Dances		
Specialized and Fusion Dances		
C. Health		
14. Introduction to Holistic Health and Healthy Living	3	
15. Comprehensive School Health Program	3	
16. Foundations of Nutritional Health and Fitness	3	
17. Fundamentals of Safety, First Aid, and Emergency Care	3	
18. Consumer Health and Drug Preventive Education	3	
Context-Intensive Courses		
19. Curriculum and Instructional Models in Physical and Health Education	3	
20. Assessment of Learning in Physical and Health Education	3	
21. Integration of Technology in Physical and Health Education	3	
D. Mandated Courses (Annex D)		14 units
PATHFIT 1-4	8	
NSTP 1 & 2	6	
SUMMARY		
A. General Education Courses		_ units
B. Professional Education Courses		36 units
C. Specialization Courses		63 units
D. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		_ units

8.1.12 Bachelor of Education Major in a Specialization Area with Certificate

Courses	Units	Total
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A. General Education Courses (Annex C)		units
B. Professional Education Courses (Annex A)		36 units
C. BEd Specialization Courses (Annex B)		51 units
D. Certificate Program Courses (See Annexes for the list of courses per Certificate Program)		18 units
• Alternative Learning System (Annex E.1); • Literacy Education (Annex E.2); • Indigenous Peoples Education (Annex E.3); • Islamic Education (Annex E.4); • Multigrade Education (Annex E.5); or • Special Needs and Inclusive Education (Annex E.6)		
E. Mandated Courses (Annex D)		14 units
SUMMARY		
A. General Education Courses		units
B. Professional Education Courses		36 units
C. BEd Specialization Courses		51 units
D. Certificate Program Courses		18 units
E. Mandated Courses (PATHFIT and NSTP)		14 units
TOTAL		units

8.2 Program of Study

Courses must be offered based on faculty and resource availability. All General Education courses must be completed before the Teaching Internship. It must also be ensured that sequential subjects are scheduled accordingly. For example, in the Professional Education Courses, *Foundations of Teaching and Learning* must come before *Learner-Centered Teaching*.

The sample course programming presented in this section is the **minimum requirement** which covers the following:

- 3 years for the BEd with Majorship
- 3.5 years for the BEd with Majorship and Certificate
- 3.5 years for BEd with Majorship in Biological Science, Physical Science, and Earth and Space Science; and 4 years if with Certificate

8.2.1 Bachelor of Education Major in ENGLISH

FIRST YEAR			
1st Semester	Units	2nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
Foundations of Linguistics for Teachers	3	Structure of English	3
Language Acquisition and Learning in Multilingual Contexts	3	Literatures of Africa and the Western Nations	3
Literatures of the Philippines, East, South, and Southeast Asia	3	Campus Journalism	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	15	TOTAL	15

SECOND YEAR			
1st Semester	Units	2nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a	3

		Professional)	
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Language Pedagogy and Assessment in Multicultural Contexts	3	Language and Literature Research 2	3
Language and Literature Research 1	3	Materials Development for Language Arts and Literature	3
Teaching and Assessment of Literature	3	Multimodal Communication for Teachers of English	3
Literary Criticism	3	Language Education Curriculum	3
Technology-Enhanced Pedagogies in Language and Literature Instruction	3	Reading Assessment and Intervention	3
Elective 1	3	Elective 2	3
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	24

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.2 Batsilyer ng Edukasyon Medyor sa FILIPINO

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
Batayang Kaalaman sa Wika	3	Ang Filipino sa Kurikulum ng Batayang Edukasyon	3
Panimulang Lingguwistika	3	Mga Obra ng Panitikang Pilipino	3
Patakarang Pangwika at Multilinggwalismo	3	Pagtuturo at Pagtataya ng mga Makrong Kasanayan sa Filipino	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	15	TOTAL	15

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Paghahanda at Ebalwasyon ng Kagamitang Panturo	3	Malikhaing Pagsulat	3
Pagtuturo ng Filipino sa mga Banyaga	3	Pamamahayag Pangkampus	3
Panunuring Pampanitikan	3	Banyagang Wika	3
Pagsasalin sa Iba't ibang Disiplina	3	Pananaliksik sa Edukasyong Filipino 2	3
Rehiyonal na Wika	3	Ang Guro ng Filipino sa Kaunlarang Pampamayanan	3
Pananaliksik sa Edukasyong Filipino 1	3	Elektib	3

PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	24

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.3 Bachelor of Education Major in MATHEMATICS

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
Algebraic Thinking and Reasoning	3	Number Theory	3
Geometric Thinking and Reasoning	3	Trigonometry	3
Discrete Mathematics	3	Precalculus	3
Mathematics of Investment	3	Philosophy of Mathematics and Mathematics Education	3
Problem Posing, Problem Solving and Mathematical Investigation	3	Principles and Strategies in Teaching Mathematics	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	21	TOTAL	21

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Calculus I	3	Calculus II	3
Linear Algebra	3	Probability and Statistics	3
Probability and Statistics I	3	Multidimensional Assessment in Mathematics	3
Curriculum, Contexts, Trends, and Issues in Mathematics Education	3	Sociocultural Data Analytics in Mathematics	3
Instrumentation and Technology for Teaching and Learning in Mathematics	3	Research in Mathematics Education	3
Mathematics Literacy	3	PATHFIT 4	(2)
PATHFIT 3	(2)		
TOTAL	24	TOTAL	21

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.4 Bachelor of Education Major in GENERAL SCIENCE

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
General Biology	4	Organic Chemistry	4
General and Inorganic Chemistry	4	Systematics and Evolution	4
General Physics (Mechanics and Fluids)	4	Thermodynamics	4
Precalculus	3	Astronomy	3
Earth Science	3	Foundations of Science Teaching for Engaged Learning	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	24	TOTAL	24

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Biochemistry	4	Waves and Optics	4
Electricity and Magnetism	4	Biodiversity and Ecology	4
Cell and Molecular Biology	4	Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	3
Research in Education	3	Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3
Education for Sustainable Development	3	Teaching Science Research and Design Thinking in Basic Education	3
		Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	26

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.5 Bachelor of Education Major in BIOLOGICAL SCIENCE

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
General Biology	4	Organic Chemistry	4
General and Inorganic Chemistry	4	Systematics and Evolution	4
General Physics (Mechanics and Fluids)	4	Thermodynamics	4
Precalculus	3	Astronomy	3
Earth Science	3	Foundations of Science Teaching for Engaged Learning	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	24	TOTAL	24

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Cell and Molecular Biology	4	Waves and Optics	4
Electricity and Magnetism	4	Biodiversity and Ecology	4
Biochemistry	4	Microbiology and Parasitology	4
Research in Science Education	3	Plant Physiology	4
Education for Sustainable Development	3	Animal Anatomy and Physiology	4
		Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	29

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Genetics	4	Teaching Internship 1	6
Biotechniques	4		
Teaching Science Research and Design Thinking in Basic Education	3		
Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3		
Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	3		
TOTAL	17	TOTAL	6

FOURTH YEAR			
1 st Semester	Units		
Teaching Internship 2	6		
TOTAL	6		

8.2.6 Bachelor of Education Major in PHYSICAL SCIENCE

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
General Biology	4	Organic Chemistry	4
General and Inorganic Chemistry	4	Systematics and Evolution	4
General Physics (Mechanics and Fluids)	4	Thermodynamics	4
Precalculus	3	Astronomy	3
Earth Science	3	Foundations of Science Teaching for Engaged Learning	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	24	TOTAL	24

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Cell and Molecular Biology	4	Waves and Optics	4
Electricity and Magnetism	4	Biodiversity and Ecology	4
Biochemistry	4	Modern Physics	3
Research in Science Education	3	Teaching of Electronics and Robotics	4
Education for Sustainable Development	3	Physical Chemistry	4
		Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	28

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Green Chemistry	4	Teaching Internship 1	6
Analytical Chemistry	4		
Teaching Science Research and Design Thinking in Basic Education	3		

Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3		
Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	3		
TOTAL	17	TOTAL	6

FOURTH YEAR			
1 st Semester	Units		
Teaching Internship 2	6		
TOTAL	6		

8.2.7 Bachelor of Education Major in EARTH AND SPACE SCIENCE

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
General Biology	4	Organic Chemistry	4
General and Inorganic Chemistry	4	Systematics and Evolution	4
General Physics (Mechanics and Fluids)	4	Thermodynamics	4
Precalculus	3	Astronomy	3
Earth Science	3	Foundations of Science Teaching for Engaged Learning	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	24	TOTAL	24

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Cell and Molecular Biology	4	Waves and Optics	4
Electricity and Magnetism	4	Biodiversity and Ecology	4
Biochemistry	4	Observational Astronomy	4
Research in Science Education	3	Geology	4
Education for Sustainable Development	3	Natural Hazards and Disasters	4
		Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	3
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	29

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Atmospheric and Climate Sciences	4	Teaching Internship 1	6
Oceanography	4		
Teaching Science Research and Design Thinking in Basic Education	3		
Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	3		
Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	3		
TOTAL	17	TOTAL	6

FOURTH YEAR			
1 st Semester	Units		
Teaching Internship 2	6		
TOTAL	6		

8.2.8 Bachelor of Education Major in SOCIAL STUDIES

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
Social Studies Foundations and the Curriculum	3	Philippine Democracy, Citizenship and the Constitution	3
Critical Perspectives on Philippine History and Nation-Building	3	Microeconomic Principles and Citizenship Application	3
Geographies of the Philippines: Places, Landscapes, and Change	3	Southeast Asian Histories and the Philippine Experience	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	15	TOTAL	15

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Peace and Human Rights Education	3	Assessment in Social Studies	3
Asian Histories, Cultures and Contemporary Issues	3	Pedagogies in Social Studies	3
Global Histories: Ideas, Movements, and Transformations	3	Specialization 15 (Institutional Course Offering)	3

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Research and Creative Works in Social Studies Education	3	Specialization 16 (Institutional Course Offering)	3
Macroeconomics and Philippine Development	3		
Technology for Teaching and Learning in Social Studies	3		
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	18

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.9 Bachelor of Education Major in VALUES EDUCATION

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
Foundations of Values Education	3	Worldviews on Spirituality and Belief Systems	3
The Science of Values Learning and Theories of Moral Development	3	Sustainability and Ecological Ethics	3
Filipino Culture, Society, and Values System	3	Facilitation Skills and Group Process Techniques	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	15	TOTAL	15

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Principles and Methods in Teaching Values Education	3	Assessment and Evaluation in Values Education	3
Values Education Curriculum for Future-ready Learners	3	Reflective Practice and Ethical Leadership in Values Education	3
Technology for Teaching and Learning Values Education	3	Development of Instructional Materials in Values Education	3
Research in Values Education 1	3	Research in Values Education 2	3

SECOND YEAR			
Contemporary Moral Issues	3	Values Education Beyond the Classroom: School-Community Collaboration	3
Critical Literacy and Dialogic Thinking for Peace and Transformative Education	3	Special Topics in Values Education	3
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	24	TOTAL	24

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.10 Bachelor of Education Major in ARTS AND CULTURE EDUCATION

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
Foundations of Arts and Culture Education	3	Teaching General Music for Children	3
		Teaching Visual Arts for Children	3
Technology for Teaching and Learning in Arts and Culture Education	3	Teaching Dance for Children	3
		Teaching Theater for Children	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	12	TOTAL	18

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Perspectives in Arts and Heritage Education in Plural Societies: The Philippine Setting	3	Integrative Arts Education	3
Multicultural Literacies in Arts Education	3	Teaching Music in Specialized Programs	3
		Teaching Visual Arts in Specialized Programs	3
Teaching General Music for the Youth	3	Teaching Dance in Specialized Programs	3
Teaching Visual Arts for the Youth	3	Teaching Theater in Specialized Programs	3
Teaching Dance for the Youth	3	Artistic Practice as Research	3
Teaching Theater for the Youth	3	PATHFIT 4	(2)
PATHFIT 3	(2)		
TOTAL	24	TOTAL	24

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.11 Bachelor of Education Major in PHYSICAL AND HEALTH EDUCATION

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Literacy Education)	3
Historical and Philosophical Foundations of Physical and Health Education	3	Biophysical Aspects of Physical and Health Education 2 (Functional Anatomy and Physiology of Health and Exercise)	3
Biophysical Aspects of Physical and Health Education 1 (Functional Anatomy and Exercise Biomechanics)	3	Motor Learning and Development	3
Human Behavior and Health (Individual, Social, and Cultural Factors Influencing Health Behaviors)	3	Game-based Pedagogy	3
Introduction to Holistic Health and Healthy Living	3	Foundations of Rhythmic Activities and Dance	3
PATHFIT 1	(2)	PATHFIT 2	(2)
NSTP 1	(3)	NSTP 2	(3)
TOTAL	18	TOTAL	15

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as a Person and as a Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Teaching Physical and Health Literacy	3	Sports/Games Elective	3
Philippine Traditional Sports and Games	3	Dance Elective	3
Integration of Technology in Physical and Health Education	3	Fundamentals of Safety, First Aid, and Emergency Care	3
Folk and Cultural Dances	3	Consumer Health and Preventive Drug Education	3
Foundations of Nutritional Health and Fitness	3	Curriculum and Instructional Models in Physical and Health Education	3
Comprehensive School Health Program	3	Research in Physical and Health Education	3
Assessment of Learning in Physical and Health Education	3		
PATHFIT 3	(2)	PATHFIT 4	(2)
TOTAL	27	TOTAL	24

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6
TOTAL	6	TOTAL	6

8.2.12 Bachelor of Education Major in a Specialization with Certificate

A. For a 3-year Program with Certificate

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special & Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Lit Ed)	3
Specialization 1	3	Certificate Course 1	3
Specialization 2	3	Specialization 3	3
NSTP 1	(3)	Specialization 4	3
PATHFIT 1	(2)	Specialization 5	3
		NSTP 2	(3)
		PATHFIT 2	(2)
Total	12	Total	18

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as Person and as Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Certificate Course 2	3	Certificate Course 3	3
Specialization 6	3	Certificate Course 4	3
Specialization 7	3	Specialization 11	3
Specialization 8	3	Specialization 12	3
Specialization 9	3	Specialization 13	3
Specialization 10	3	Specialization 14	3
PATHFIT 3	(2)	PATHFIT 4	(2)
Total	24	Total	24

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Certificate Course 5	3	Teaching Internship 1	6
Certificate Course 6	3	Total	6
Specialization 15	3		
Specialization 16	3		
Specialization 17	3		
Specialization 18	3		
Total	18		

FOURTH YEAR	
1 st Semester	Units
Teaching Internship 2	6
TOTAL	6

B. For a 3.5-year Program with Certificate

FIRST YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 1 (Human Growth and Development)	3	Professional Education 3 (Foundations of Special and Inclusive Education)	3
Professional Education 2 (Foundations of Teaching and Learning)	3	Professional Education 4 (Theories and Approaches in Lit Ed)	3
Specialization 1	4	Specialization 6	4
Specialization 2	4	Specialization 7	4
Specialization 3	4	Specialization 8	4
Specialization 4	3	Specialization 9	3
Specialization 5	3	Specialization 10	3
NSTP 1	(3)	NSTP 2	(3)
PATHFIT 1	(2)	PATHFIT 2	(2)
Total	24	Total	24

SECOND YEAR			
1 st Semester	Units	2 nd Semester	Units
Professional Education 5 (Learner-Centered Teaching)	3	Professional Education 7 (The Teacher as Person and as Professional)	3
Professional Education 6 (Learner Assessment)	3	Professional Education 8 (Principles and Practices of Homeroom Guidance)	3
Certificate Course 1	3	Certificate Course 3	3
Certificate Course 2	3	Certificate Course 4	3
Specialization 11	4	Specialization 15	4
Specialization 12	4	Specialization 16	3
Specialization 13	3	Specialization 17	4
Specialization 14	3	Specialization 18	3
PATHFIT 3	(2)	PATHFIT 4	(2)
Total	26	Total	26

THIRD YEAR			
1 st Semester	Units	2 nd Semester	Units
Certificate Course 5	3	Specialization 22	4
Certificate Course 6	3	Specialization 23	4
Specialization 19	4	Specialization 24	3
Specialization 20	4	Specialization 25	3
Specialization 21	4	Specialization 26	3
Total	18	Total	17

FOURTH YEAR			
1 st Semester	Units	2 nd Semester	Units
Teaching Internship 1	6	Teaching Internship 2	6

Total	6	Total	6
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Section 9. Sample Curriculum Map

The mapping of courses to the program outcomes is guided by development levels. The scale provides descriptions of the degree to which a program outcome is addressed by a particular course. The descriptions are informed by curriculum mapping guides used by higher education institutions and adapted to the context of teacher education. The mapping can be reviewed and modified to align with the regional and institutional contexts and expectations.

Legend:

I – Introduced. Pre-service teachers (PSTs) are introduced to the foundational knowledge and skills.

P – Practiced. PSTs apply knowledge and reinforce abilities through practice.

D – Demonstrated. PSTs demonstrate understanding and application of knowledge and skills in different contexts.

PROFESSIONAL EDUCATION COURSES	TEACHER EDUCATION PROGRAM OUTCOMES							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
1. Human Growth and Development		I	I			I		
2. Foundations of Teaching and Learning	I	I	I			I		
3. Foundations of Special and Inclusive Education		P	D	I			I	
4. Theories and Approaches in Literacy Education	I		I	P	I			
5. Learner- Centered Teaching	P		P	P	P			I
6. Learner Assessment	I			P	P	P		
7. The Teacher as a Person and as a Professional		P					P	D
8. Principles and Practices of Homeroom Guidance	I	P					P	P
9. Teaching Internship	P	P	D	D	D	D	D	D

BEd ENGLISH SPECIALIZATION COURSES	BEd ENGLISH PROGRAM OUTCOMES					
	PO 1	PO 2	PO3	PO 4	PO5	PO 6
1. Foundations of Linguistics for Teachers	I	I				I
2. Language Acquisition and Learning in Multilingual Contexts	I	D	I		I	D
3. Literatures of the Philippines, East, South, and Southeast Asia	I	P			I	I
4. Structure of English	I	I			P	
5. Literatures of Africa and the Western Nations	I	P			I	I
6. Campus Journalism	D	D	P	P	P	I
7. Language Pedagogy and Assessment in Multicultural Contexts			P	D	D	
8. Literacy Criticism	D	D	P		P	P
9. Teaching and Assessment of Literature	D	D	P	D	D	I
10. Technology-Enhanced Pedagogies in Language and Literature Instruction	D	I	D	D	D	P
11. Language and Literature Research 1	D	D	D	D	D	D
12. Language and Literature Research 2	D	D	D	D	D	D
13. Materials Development for Language Arts and Literature		P	P		P	
14. Multimodal Communication for Teachers of English	D	D	D	P	D	P
15. Language Education Curriculum		P	P		P	
16. Reading Assessment and Intervention	D	P	D	D	D	D

BEd FILIPINO SPECIALIZATION COURSES	BEd FILIPINO PROGRAM OUTCOMES					
	PO 1	PO 2	PO3	PO 4	PO5	PO 6
1. Batayang Kaalaman sa Wika	I					
2. Panimulang Lingguwistika	I					
3. Patakarang Pangwika at Multilingguwalismo	I					D
4. Ang Filipino sa Kurikulum ng Batayang Edukasyon		D	P	D		
5. Mga Obra ng Panitikang Pilipino (Mga Obra ng Panitikang Global sa Wikang Filipino)	I					
6. Pagtuturo at Pagtataya ng mga Makrong Kasanayan sa Filipino				D		
7. Paghahanda at Ebalwasyon ng Kagamitang Panturo			D			
8. Pagtuturo ng Filipino sa mga Banyaga		D	P	D		
9. Panunuring Pampanitikan	I					
10. Pagsasalin sa Iba't ibang Disiplina						
11. Malikhainag Pagsulat	P					
12. Pamamahayag Pangkampus	P					D
13. Rehiyonal na Wika	I					
14. Banyagang Wika	I					P
15. Pananaliksik sa Edukasyong Filipino 1					P	
16. Pananaliksik sa Edukasyong Filipino 2					D	
17. Ang Guro ng Filipino sa Kaunrang Pampamayanan						D

BEd MATHEMATICS SPECIALIZATION COURSES	BEd MATHEMATICS PROGRAM OUTCOMES							
	PO 1	PO 2	PO3	PO 4	PO5	PO 6	PO 7	PO 8
1. Algebraic Thinking and Reasoning	D				D			
2. Geometric Thinking and Reasoning	D	P	P		D		P	
3. Discrete Mathematics	D	I	I		D		P	
4. Number Theory	D	I	I		D			
5. Curriculum, Contexts, Trends, and Issues in Mathematics Education		D	P					I
6. Mathematics of Investment	D	D	P		D			
7. Trigonometry	D	P	I		D			
8. Precalculus	D	P	P		P	P		
9. Philosophy of Mathematics and Mathematics Education						D	D	D
10. Principles and Strategies in Teaching Mathematics	D			P		D		P
11. Calculus I	D	P	P		P	I		
12. Linear Algebra	D	D	P		D	I	I	
13. Probability and Statistics I	D	P	P		P	I	I	
14. Problem Posing, Problem Solving and Mathematical Investigation	D	D	P		D			
15. Instrumentation and Technology for Teaching and Learning in Mathematics	D	P	D	P	D			P
16. Mathematics Literacy	D	D	P	I	P			
17. Calculus II	D	P	P		D			
18. Probability and Statistics II	D	P	P		D	P	P	
19. Multidimensional Assessment in Mathematics	D	P	P	D	D			D

20. Sociocultural Data Analytics in Mathematics	D	D	P				D	D
21. Research in Mathematics Education		D					P	

BEd GENERAL SCIENCE SPECIALIZATION COURSES	BEd GENERAL SCIENCE PROGRAM OUTCOMES					
	PO 1	PO 2	PO3	PO 4	PO5	PO 6
1. General Biology	P	I	I	I	I	I
2. General and Inorganic Chemistry	P	I	I	I	I	I
3. General Physics (Mechanics and Fluids)	D	D				I
4. Pre-Calculus	D	D				
5. Earth Science	I	I	I	I	I	I
6. Organic Chemistry	P	I	I	I	I	P
7. Systematics and Evolution	D	I	I	I	I	P
8. Thermodynamics	D	D				I
9. Astronomy	I	I	I	I	I	I
10. Biochemistry	P	I	I	I	P	P
11. Electricity and Magnetism	D	D				I
12. Cell and Molecular Biology	D	I	I	P	P	I
13. Waves and Optics	D	D				I
14. Biodiversity and Ecology	D	I	I	I	P	I
15. Foundations of Science Teaching for Engaged Learning	D	D	P	P	D	D
16. Research in Science Education	D	P	P	P	P	P
17. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	D	D	P	P	P	P
18. Teaching Science Research and Design Thinking in Basic Education	D	P	P	P	P	P
19. Education for Sustainable Development	D	D	P	P	P	P
20. Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	D	D	P	P	P	P
21. Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	D	D	P	P	P	P

BEd BIOLOGICAL SCIENCE SPECIALIZATION COURSES	BEd BIOLOGICAL SCIENCE PROGRAM OUTCOMES							
	PO 1	PO 2	PO3	PO 4	PO5	PO 6	PO 7	PO 8
1. General Biology	P	I	I	I	I	I	D	D
2. General and Inorganic Chemistry	P	I	I	I	I	I	P	P
3. General Physics (Mechanics and Fluids)	D	D				I		
4. Pre-Calculus	D	D						
5. Earth Science	I	I	I	I	I	I	P	I
6. Organic Chemistry	P	I	I	I	I	P	P	P
7. Systematics and Evolution	D	I	I	I	I	P	D	D
8. Thermodynamics	D	D				I		
9. Astronomy	I	I	I	I	I	I	P	I
10. Biochemistry	P	I	I	I	P	P	P	P
11. Electricity and Magnetism	D	D				I		
12. Cell and Molecular Biology	D	I	I	P	P	I	D	D
13. Waves and Optics	D	D				I		
14. Biodiversity and Ecology	D	I	I	I	P	I		
15. Genetics	D	D				I		
16. Microbiology and Parasitology	D	D				I		
17. Animal Anatomy and Physiology	D	D				I		
18. Plant Physiology	D	D				I		
19. Biotechniques	D	D				I		

20. Foundations of Science Teaching for Engaged Learning	D	D	P	P	D	D	D	D
21. Research in Science Education	D	P	P	P	P	P	I	P
22. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	D	D	P	P	P	P	I	P
23. Teaching Science Research and Design Thinking in Basic Education	D	P	P	P	P	P	I	D
24. Education for Sustainable Development	D	D	P	P	P	P	I	P
25. Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	D	D	P	P	P	P	I	P
26. Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	D	D	P	P	P	P	I	P

BEd PHYSICAL SCIENCE SPECIALIZATION COURSES	BEd PHYSICAL SCIENCE PROGRAM OUTCOMES							
	PO 1	PO 2	PO3	PO 4	PO5	PO 6	PO 7	PO 8
1. General Biology	P	I	I	I	I	I	D	D
2. General and Inorganic Chemistry	P	I	I	I	I	I	P	P
3. General Physics (Mechanics and Fluids)	D	D				I		
4. Pre-Calculus	D	D						
5. Earth Science	I	I	I	I	I	I	P	I
6. Organic Chemistry	P	I	I	I	I	P	P	P
7. Systematics and Evolution	D	I	I	I	I	P	D	D
8. Thermodynamics	D	D				I		
9. Astronomy	I	I	I	I	I	I	P	I
10. Biochemistry	P	I	I	I	P	P	P	P
11. Electricity and Magnetism	D	D				I		
12. Cell and Molecular Biology	D	I	I	P	P	I	D	D
13. Waves and Optics	D	D				I		
14. Biodiversity and Ecology	D	I	I	I	P	I		
15. Modern Physic	D	D				I		
16. Teaching of Electronics and Robotics	D	D				I		
17. Physical Chemistry	D	D				I		
18. Green Chemistry	D	D				I		
19. Analytical Chemistry	D	D				I		
20. Foundations of Science Teaching for Engaged Learning	D	D	P	P	D	D	D	D
21. Research in Science Education	D	P	P	P	P	P	I	P
22. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	D	D	P	P	P	P	I	P
23. Teaching Science Research and Design Thinking in Basic Education	D	P	P	P	P	P	I	D
24. Education for Sustainable Development	D	D	P	P	P	P	I	P
25. Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	D	D	P	P	P	P	I	P
26. Socio-Scientific Issues in Science Teaching: A Literacy	D	D	P	P	P	P	I	P

and Numeracy Approach								
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BEd EARTH AND SPACE SCIENCE SPECIALIZATION COURSES	BEd EARTH AND SPACE SCIENCE PROGRAM OUTCOMES							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
1. General Biology	P	I	I	I	I	I	D	D
2. General and Inorganic Chemistry	P	I	I	I	I	I	P	P
3. General Physics (Mechanics and Fluids)	D	D				I		
4. Pre-Calculus	D	D						
5. Earth Science	I	I	I	I	I	I	P	I
6. Organic Chemistry	P	I	I	I	I	P	P	P
7. Systematics and Evolution	D	I	I	I	I	P	D	D
8. Thermodynamics	D	D				I		
9. Astronomy	I	I	I	I	I	I	P	I
10. Biochemistry	P	I	I	I	P	P	P	P
11. Electricity and Magnetism	D	D				I		
12. Cell and Molecular Biology	D	I	I	P	P	I	D	D
13. Waves and Optics	D	D				I		
14. Biodiversity and Ecology	D	I	I	I	P	I		
15. Observational Astronomy	D	D				I		
16. Geology	D	D				I		
17. Oceanography	D	D				I		
18. Atmospheric and Climate Sciences	D	D				I		
19. Natural Hazards and Disasters	D	D				I		
20. Foundations of Science Teaching for Engaged Learning	D	D	P	P	D	D	D	D
21. Research in Science Education	D	P	P	P	P	P	I	P
22. Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies	D	D	P	P	P	P	I	P
23. Teaching Science Research and Design Thinking in Basic Education	D	P	P	P	P	P	I	D
24. Education for Sustainable Development	D	D	P	P	P	P	I	P
25. Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovations for Future Learning	D	D	P	P	P	P	I	P
26. Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach	D	D	P	P	P	P	I	P

BEd SOCIAL STUDIES SPECIALIZATION COURSES	BEd SOCIAL STUDIES PROGRAM OUTCOMES									
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
1. Social Studies Foundations and the Curriculum	I	I	I	I			I	I	I	I
2. Critical Perspectives on Philippine History and Nation-Building	I	I	P	I	P		P	P	P	P
3. Geographies of the Philippines: Places, Landscapes, and Change	I	I	P		D		P	D	P	P
4. Philippine Democracy, Citizenship, and the Constitution	I	I	P	I	P		P	P	P	I
5. Microeconomic Principles and Citizenship Applications	I			I	P		P	P	P	I

6. Southeast Asian Histories and the Philippine Experience	I	I	P	I	P		P	P	P	I
7. Peace Education and Human Rights Education	I	P	P	D	P		P	D	P	P
8. Asian Histories, Cultures, and Contemporary Issues	I	I	P	I	P		P	P	P	I
9. Global Histories: Ideas, Movements, and Transformations	I	I	P	I	P		P	P	P	I
10. Research and Creative Works in Social Studies Education	D			D	D	P	D	D	P	D
11. Macroeconomics and Philippine Development	I			I	P		P	P	P	I
12. Technology for Teaching and Learning in Social Studies	P	P	P	D	D	P	P	P	P	P
13. Assessment in Social Studies	P	P		D	D	D	P	I	P	D
14. Pedagogies in Social Studies	D	D	D	D	D	P	P	D	D	D

BEd VALUES EDUCATION SPECIALIZATION COURSES	BEd VALUES EDUCATION PROGRAM OUTCOMES									
	PO 1	PO 2	PO3	PO 4	PO5	PO 6	PO 7	PO 8	PO 9	PO 10
1. Foundations of Values Education	D		I		I					
2. The Science of Values Learning and Theories of Moral Development	I		I		I					
3. Filipino Culture, Society, and Values System	I		D			I				
4. Worldviews on Spirituality and Belief Systems	I		P			I				
5. Sustainability and Ecological Ethics	I		I	P					P	
6. Facilitation Skills and Group Process Techniques			P	P	P				P	
7. Principles and Methods in Teaching Values Education		I			P	D		P	P	
8. Values Education Curriculum for Future-ready Learners		D						P		I
9. Technology for Teaching and Learning Values Education		I			D	P				
10. Research in Values Education 1					P		P	P		
11. Contemporary Moral Issues	I				P				P	
12. Critical Literacy and Dialogic Thinking for Peace and Transformative Education	P		P	D					P	P
13. Assessment and Evaluation in Values Education		P			P	D				
14. Reflective Practice and Ethical Leadership in Values Education	P			P	D				D	D
15. Development of Instructional Materials in Values Education		P			P	D		P		
16. Research in Values Education 2					D		D	D		
17. Values Education Beyond the Classroom: School-Community Collaboration				D				D	D	D
18. Special Topics in Values Education			I	I	I	I			I	I

BEd ARTS AND CULTURE EDUCATION SPECIALIZATION COURSES	BEd ARTS AND CULTURE EDUCATION PROGRAM OUTCOMES									
	PO 1	PO 2	PO3	PO 4	PO5	PO 6	PO 7	PO 8	PO 9	PO 10
1. Foundations of Arts and Culture	I	I	I			I				I

Education										
2. Technology for Teaching and Learning in Arts and Culture Education		I		I				I	I	
3. Teaching General Music for Children	P	P	P		P	P	P	I		P
4. Teaching Visual Arts for Children	P	P		P	P	P	P	I	I	P
5. Teaching Dance for Children		P	P				P	I		P
6. Teaching Theater for Children	P	P	P					I		
7. Perspectives in Arts and Heritage Education in Plural Societies: The Philippine Setting	D					D			P	D
8. Multicultural Literacies in Arts Education	D		P	P		P	P			D
9. Teaching General Music for the Youth	P	D	P		P	P	D	P		D
10. Teaching Visual Arts for the Youth	P	D		P	P	P	D	P	P	D
11. Teaching Dance for the Youth	P	D	P			P	D			
12. Teaching Theater for the Youth	P	D	P	P	P		D			
13. Integrative Arts Education	D	D	D	D	D	D	D	D	P	D
14. Teaching Music in Specialized Programs	D	D	D		D	D	D	D		D
15. Teaching Visual Arts in Specialized Programs	D	D		D	D	D	D	D	P	D
16. Teaching Dance in Specialized Programs		D	D		D		D	D		
17. Teaching Theater in Specialized Programs	D	D		D		D		D		D
18. Artistic Practice as Research				D	D				D	D

BEd PHYSICAL AND HEALTH EDUCATION SPECIALIZATION COURSES	BEd PHYSICAL AND HEALTH EDUCATION PROGRAM OUTCOMES					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6
Foundation Courses						
1. Historical and Philosophical Foundations of Physical and Health Education	I	P	P	I	P	I
2. Biophysical Aspects of Physical and Health Education 1 (Functional Anatomy and Exercise Biomechanics)	P	I	P	P	P	I
3. Biophysical Aspects of Physical and Health Education 2 (Functional Anatomy and Physiology of Health and Exercise)	P	I	P	P	P	I
4. Human Behavior and Health (Individual, Social, and Cultural Factors Influencing Health Behaviors)	P	I	P	P	P	I
5. Motor Learning and Development	P	I	P	P	P	I
6. Teaching Physical and Health Literacy	P	I	P	P	P	I
7. Research in Physical and Health Education	P	I	P	P	P	P
Content-Driven Pedagogy Courses						
A. Sports/Games						
8. Game-based Pedagogy	D	I	D	P	D	I
9. Philippine Traditional Sports and Games	P	P	P	P	P	I
10. Sports/Games Elective, any 1 of the following:						
a. Teaching Invasion and Tag Games	D	I	D	P	D	I
b. Teaching Net/Wall Games	D	I	D	P	D	I
c. Teaching Striking/Fielding and Target Games	D	I	D	P	D	I
d. Individual Performance Activities	D	I	D	P	D	I
Content-Driven Pedagogy Courses						

B. Dances						
11. Foundations of Rhythmic Activities and Dance	P	I	P	P	P	I
12. Folk and Cultural Dances	P	P	P	P	P	I
13. Dance Elective, any 1 of the following:						
a. Social and Ballroom Dances	P	I	P	D	I	I
b. Specialized and Fusion Dances	P	I	P	D	I	I
Content-Driven Pedagogy Courses						
C. Health						
14. Introduction to Holistic Health and Healthy Living	I	P	D	D	I	I
15. Comprehensive School Health Program	P	D	D	D	P	I
16. Foundations of Nutritional Health and Fitness	D	P	D	P	P	I
17. Fundamentals of Safety, First Aid, and Emergency Care	P	P	D	D	D	I
18. Consumer Health and Drug Preventive Education	P	D	D	P	D	D
Context-Intensive Courses						
19. Curriculum and Instructional Models in Physical and Health Education	P	I	P	P	D	P
20. Assessment of Learning in Physical and Health Education	P	I	P	P	D	P
21. Integration of Technology in Physical and Health Education	P	I	P	P	P	D

Section 10. Learning Delivery

The *Reframed* Pre-service Teacher Education Curriculum advances interdisciplinary and integrative approaches that emphasize deep understanding of disciplinary content and its contextualized application to address contemporary educational concerns. The curriculum promotes transformative pedagogies grounded in developmentally appropriate, evidence-based, and inclusive practices. Innovative pedagogical frameworks are explored, with deliberate integration of technology and enhancement of research proficiency. Moreover, the rigorous development of content knowledge is complemented by purposeful experiential learning, enabling pre-service teachers to cultivate adaptive strategies responsive to the diverse needs of learners and varied learning environments. Ultimately, the curriculum seeks to nurture values-driven and culturally responsive educators committed to advancing national aspirations.

Teacher education institutions are afforded flexibility in learning delivery. To support curriculum operationalization, Syllabus Guides are provided as references for unpacking learning outcomes through suggested content, teaching and learning activities, and assessment methods. The Compendium of Syllabus Guides for the courses in the BEd program is accessible through a repository provided in Annex G.

Section 11. Curriculum Implementation

The *Reframed* Pre-service Teacher Education Curriculum promotes flexibility and context-responsive operationalization of curriculum expectations. Innovation is advocated through various forms of support and quality assurance mechanisms to be established by CHED and TEC. This approach shall empower Teacher Education Institutions (TEIs) to exercise agency by being afforded increased flexibility in crafting curriculum implementation strategies.

Institutions that model and document their innovations shall be prioritized for incentives, grants, and other supports from CHED and TEC. TEIs shall also be supported by CHED and TEC in moving towards models that offer greater flexibility. Streamlined monitoring and quality assurance systems shall be established to support the curriculum implementation.

The implementation of the curriculum shall commence in the pilot phase in SY 2026-2027, involving selected TEIs representing different institutional types across the regions. The pilot implementation aims to collect data to identify curriculum effectiveness and potential gaps. The pilot will also serve as the curriculum diffusion stage, focused on information dissemination and capacity building for TEIs and other education stakeholders.

The flexible implementation is framed by models that advance curriculum **innovation, contextualization, and adoption**. The flexibilities are in reference to the minimum requirements set by this PSG. These models are characterized by specific areas of flexibility based on the different curriculum program standards: *Program Outcomes, Program Components, Program Structure, Program Design and Delivery, and Program Evaluation*.

Program Outcomes refer to the minimum expectations that pre-service teachers must demonstrate based on the program, discipline, and institution from which they graduated. The eight (8) Teacher Education Program Outcomes and the specific degree-program outcomes, as indicated in Sections 6 and 7, are **minimum requirements** that apply to all TEIs offering the BEd program. TEIs can include context-driven and mission-oriented outcomes as indicated in Section 4.

Program Components are the areas into which pre-service teacher education courses are categorized. These are *General Education, Professional Education, and Specialization*. These components are also **minimum requirements**, but the operationalization of their structure, delivery, and evaluation is an area for flexibility. Specific degree programs also provide pathways with Concentrations and/or Certificate Programs. Offering of these components must be supported by TEI faculty expertise and resources.

TEIs are allowed to implement different delivery routes to achieve the required minimum set of outcomes as indicated in Section 4. Specific areas of flexibility can be explored within Program Structure (as stated in Section 8.1), Design and Delivery, and Evaluation. *Program Structure* refers to the courses and their corresponding units, as well as the total number of units per *Program Component*. *Program Design and Delivery* is the systematic planning and implementation of the curriculum to meet the specified program outcomes, while *Program Evaluation* involves the collection and analysis of relevant data to assess the demonstration of those outcomes. More specific flexibilities and institutional qualifications are described in the flexible implementation models below:

11.1 Curriculum Innovation Model

Curriculum innovation involves developing, modeling, and documenting new designs, processes, and methodologies to transform educational systems. TEIs that can implement the *Curriculum Innovation Model* must be a TEC National or Regional Centers of Excellence (COEs), or a CHED Excellence in Quality Assurance in Teacher Education (EQUATE) Dual Awardee. In this model, TEIs shall adopt the Professional Education courses. Specialization courses that develop pedagogical content knowledge shall also be adopted. These courses are those that focus on teaching methodology, curriculum, assessment, technology for teaching and learning, research, and literacy. As such, the model recognizes the TEI's readiness to adapt the curriculum with greater flexibility while remaining aligned with established standards and intended learning outcomes.

Areas for flexible implementation may include:

- designing data-driven experiential learning and teaching internship models that respond to the pressing and emerging needs of the TEI context in regional and/or national scope;
- modifying courses in the minimum requirement based on contextual demands in the region and/or the discipline area; and
- implementing program delivery strategies through consortium arrangement, Open Distance and e-Learning, microcredentials, extension classes, and internationalization based on faculty qualifications and infrastructure resource capabilities; and
- modeling continuous curriculum quality improvement mechanisms, including but not limited to curriculum quality audit, institutional outcomes assessment, and program-level evaluation.

11.2 Curriculum Contextualization Model

Curriculum contextualization prompts targeted, customized implementation driven by situated, localized needs and challenges. TEIs that can implement the *Curriculum Contextualization Model* must have at least Level II Program Accreditation, be a CHED EQUATE Awardee in at least 1 program, or be compliant with specific indicators in the TEC *Self-Assessment Report*. In this model, TEIs shall adopt the Professional Education courses. Specialization courses that develop pedagogical content knowledge shall also be adopted. These courses are those that focus on teaching methodology, curriculum, assessment, technology for teaching and learning, research, and literacy. TEIs must have the capacity to design, deliver, and assess courses in ways that respond to their unique needs, local conditions, and institutional contexts.

Areas for flexible implementation may include:

- designing data-driven experiential learning and teaching internship models that respond to the pressing and emerging needs of the TEI context in regional scope;

- modifying specialization courses in the minimum requirement based on contextual demands in the region;
- implementing program delivery strategies through consortium arrangement, Open Distance and e-Learning, microcredentials, extension classes, and internationalization based on faculty qualifications and infrastructure resource capabilities; and
- modeling continuous curriculum quality improvement mechanisms, including but not limited to curriculum quality audit, institutional outcomes assessment, and program-level evaluation.

11.3 Curriculum Adoption Model

Curriculum adoption involves comprehensive planning and implementation in delivering the minimum requirements of the curriculum expectations and design. The *Curriculum Adoption Model* applies to all other TEIs. In this model, TEIs shall adopt all courses prescribed by the *reframed* pre-service teacher education curriculum.

Areas for flexible implementation may include:

- integrating experiential learning across the ProfEd and Specialization courses;
- implementing a Teaching Internship model designed by TEC and CHED;
- delivering the program in a consortium arrangement in collaboration with other TEIs;
- offering selected courses through Open Distance and e-Learning in partnership with other TEIs and based on faculty qualifications and infrastructure resource capabilities; and
- adapting continuous curriculum quality improvement mechanisms as prescribed by TEC and CHED.

All TEIs will be supported to progressively transition from the Curriculum Adoption Model to the Curriculum Contextualization Model.

Section 12. Sample Syllabus Guides (Annex H)

A ***Compendium of Syllabus Guides*** for all courses is provided to support curriculum unpacking by outlining the constructive alignment among course learning outcomes, assessments, and content. Recommendations and suggestions on topics, assessment, activities, and resources serve as a reference in operationalizing the curriculum and designing the course delivery. The issuance of Syllabus Guides should not prevent TEIs from making modifications in light of their institutional vision, mission, goals, and philosophy.

The Syllabus Guides will be released progressively in line with the proposed course programming. They shall be accessible through the following online repository platforms:

TEC Website: <https://tec.gov.ph/>

TEC Repository: 

Inquiries and clarifications on the curriculum may be directed to the following communication channels:

TEC Email: teccurriculum.support@gmail.com

CHED Email:

ARTICLE VI REQUIRED RESOURCES

Section 13. Administration Dean/Department Head

The Dean/Department Head of the college offering the degree shall be employed full-time and must possess the following qualifications:

1. Filipino citizen
2. Holder of a Doctorate degree in Education or a related field
3. Holder of a Certificate of Registration and Professional Identification Card for Professional Teachers
4. With a total of at least three (3) years of very satisfactory teaching experience in basic education and/or tertiary level
5. Preferably with at least two (2) years of managerial/administrative experience.

Section 14. Faculty

A. General Requirements

1. As a general rule, a master's degree in education or in an aligned or allied discipline is required for teaching at the tertiary level.
2. Faculty members teaching general education, mandated, and core courses should have an appropriate master's degree in the field they are assigned to teach.

B. Qualifications of the Professional Education Faculty

Faculty teaching Professional Education courses should have the following qualifications:

1. Holder of a Certificate of Registration and Professional Identification Card for Professional Teachers.
2. Holder of a Master's degree in Education or in an aligned or allied field.

D. Full-time faculty members of the college

The institution shall maintain 25% of the faculty members teaching in the teacher education program as full-time.

E. Faculty Development

The College of Education must have a system to support faculty development anchored on the institution's faculty development program. It should require the faculty members to:

1. complete doctoral degrees in education and other aligned or allied fields; attend continuing education seminars, workshops, conferences, and others;
2. undertake research activities related to the teacher education program and publish their research outputs in refereed publications; and
3. give lectures and present papers in national/international conferences, symposia, and seminars.

Section 15. Library

Library personnel, facilities, and holdings should conform to existing CHED requirements for libraries, as embodied in CMO No. 22, series of 2021 – Minimum Requirements for Libraries of Higher Education Institutions Common to All Programs. The library must maintain a collection of updated, appropriate textbooks and references for the core courses in the curriculum. Library resources should complement curriculum delivery to optimize achievement of the BEd program outcomes.

Section 16. Laboratory and Physical Facilities

In addition to the required laboratories and facilities for general education, the following shall be provided:

A. Educational Technology Laboratory

The TEI should have access to an educational technology laboratory with appropriate equipment and software as indicated in the course specifications. The same laboratory shall be used to allow the preparation, presentation, and viewing of audio-visual materials to support instruction.

B. Laboratory School or Cooperating Schools

The TEI should maintain a facility where students can conduct their field study. This facility may be a laboratory school administered by the TEI. When TEI has no laboratory school, TEI must have a long-term memorandum of agreement with a Department of Education cooperating school or a cluster of cooperating schools within which students can undertake their professional education and teaching internship courses.

Section 17. Admission and Retention Policy

The basic requirement for eligibility for admission of a student to the Teacher Education program shall be graduates from a Senior High School level recognized by the Department of Education.

TEIs must have a selective admission policy in place for Teacher Education programs. This policy shall include passing an admission examination. For this purpose, TEIs may use either of the following admission examinations:

1. an admission examination developed and validated by the TEI;

2. an admission examination developed and validated by another TEI and used by TEI under a consortium agreement;
3. an admission examination developed and validated by private testing centers and used by TEI for a fee;
4. some other standardized tests for teaching aptitude; or
5. some other national qualifications examinations may be developed in the future.
- 6.

ARTICLE VII COMPLIANCE OF HEIs

Using the ***CHED Implementation Handbook for OBE and ISA*** as a reference, an HEI shall develop the following items, which will be submitted to CHED when they apply for a permit for a new program:

Section 18. The complete set of program outcomes, including its proposed additional program outcomes.

Section 19. Its proposed curriculum and its justification, including a curriculum map.

Section 20. Proposed performance indicators for each outcome. Proposed measurement system for the level of attainment of each indicator.

Section 21. Proposed outcomes-based syllabus for each course.

Section 22. Proposed system of program assessment and evaluation

Section 23. Proposed system of program Continuous Quality Improvement (CQI).

For existing programs, CHED shall conduct regular monitoring and evaluation of HEIs' compliance with these Policies, Standards, and Guidelines using an outcomes-based assessment instrument.

ARTICLE VIII TRANSITORY, REPEALING, AND EFFECTIVITY PROVISIONS

Section 24. Transitory Provision

All private HEIs, State Universities and Colleges (SUCs), and Local Universities and Colleges (LUCs) with existing authorization to operate the **Bachelor of Education** program are hereby given a period of three (3) years from the effectivity thereof to fully comply with all the requirements in this CMO. The prescribed minimum curricular requirements in this CMO shall be implemented starting SY 2027-2028, following the pilot implementation of selected TEIs in SY 2026-2027.

Section 25. Sanctions

For violation of this Order, the Commission may impose such administrative sanction as it may deem appropriate pursuant to the pertinent provisions of Republic Act No. 7722, in relation to Section 69 of BP 232 otherwise known as the Higher Education Act of 1982, and the Manual of Regulations for Private Higher Education (MORPHE) per CMO No. 40, series of 2008 and other related laws.

Section 26. Repealing Clause

Any provision of this Order, which may thereafter be held invalid, shall not affect the remaining provisions.

All CHED issuances or parts thereof inconsistent with the provisions in this CMO shall be deemed modified or repealed.

Section 27. Effectivity Clause

This Order shall take effect after its publication in the Official Gazette or Newspaper of General Circulation.

Quezon City, Philippines, _____

SHIRLEY C. AGRUPIS, Ph.D.
Chairperson

Attachments:

Annex A – Description of Professional Education Courses

Annex B – Description of BEd Specialization Courses

Annex C – Description of General Education Course Themes (% CHED)

Annex D - Description of Mandated Courses (% CHED)

Annex E – Undergraduate Certificate Program Courses

E.1 Alternative Learning System

E.2 Literacy Education

E.3 Indigenous Peoples Education

E.4 Islamic Education

E.5 Multigrade Education

E.6 Special Needs and Inclusive Education

Annex F – ICT Competency Standards for Teachers (% CHED)

Annex G – Sample Syllabus Guide and Link to Repository of Syllabus Guides Compendium

Annex A
Description of Professional Education Courses

Course Title	Human Growth and Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares pre-service teachers to understand and support learners across all developmental stages by examining physical, cognitive, emotional, and social development from infancy through adulthood, and translating this understanding into supportive and inclusive learning designs. The course emphasizes analyzing development through major theories and allied foundations of teaching and learning, and designing responsive learning experiences that connect theory to classroom realities and learner diversity. Pre-service teachers examine the foundations of and physical growth patterns, cognitive development and brain-based learning, socio-emotional and moral development, and humanistic and ecological perspectives, including Filipino contexts. Learning experiences include theory-informed discussions, analysis papers, and developmental timelines, along with workshops and observations/fieldwork that focus on developmental stage, needs, and contextual factors. At the end of the course, pre-service teachers create supportive and inclusive learning plans that meet the needs of diverse learners at various ages, using developmentally appropriate, inclusive learning experiences aligned to curriculum expectations and explained through Science of Learning principles.

Course Title	Foundations of Teaching and Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides pre-service teachers with an interdisciplinary foundation by engaging philosophical, historical, legal, socio-cultural, psychological, and inclusive perspectives, enabling them to critically reflect on their roles as educators in diverse and evolving learning environments. It enables them to explore foundational education philosophies, examine key legal and policy frameworks, and investigate cultural, psychological, sociological, and anthropological dimensions of teaching and learning to understand how these elements collectively inform inclusive and contextually responsive classroom practices. PSTs will engage in readings, discussions, and case analyses that connect educational foundations to classroom realities, allowing them to investigate how values, beliefs, systems, and learner contexts influence teaching practice. Through reflective writing, school culture audit, legal scenario analysis, and community-based inquiries, they will articulate their evolving perspectives on education. At the end of the course, the PSTs will create evidence-informed activities and strategies to improve a classroom situation, demonstrating inclusive and contextually responsive teaching.

Course Title	Foundations of Special and Inclusive Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares pre-service teachers to understand and support learners of all backgrounds and abilities by building a practical grasp of inclusive education's historical, legal, and theoretical foundations and how disability, language, and socioeconomic realities intersect to shape learning needs. It helps them develop the knowledge, skills, and values needed to adapt lessons, create inclusive classrooms, and respond effectively to each learner's unique needs. Key areas of focus include the Universal Design for Learning, to facilitate the meaningful inclusion of learners with disabilities in general education classrooms. Pre-service teachers explore essential strategies for supporting diverse learners, including Positive Behavior Support, core modification and accommodation techniques, and appropriate assessment approaches. The course also covers Recognition of Prior Learning, multigrade classrooms, Mother Tongue Based-Multilingual Education, and education in emergencies to inform planning for formal, non-formal, and resource-limited contexts. Collaborative activities involve inclusive approaches and policy-to-practice cases, tiered supports, fair assessment, Individualized Education Program-informed accommodations, assistive technologies, inclusive digital/blended learning design, and community advocacy work. Pre-service teachers develop a learner diversity portfolio, a lesson design project, and a professional reflection and community engagement action plan reflecting inclusive, supportive, and culturally responsive learning environments that uphold the principles of accessibility, equity, and educational justice.

Course Title	Theories and Approaches in Literacy Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with a strong foundation on how literacy develops within and across key stages and how learners' literacy characteristics shape developmental, content-based, or intervention-focused teaching. The course examines learner-, text-, and context-related factors that influence literacy learning and outcomes across diverse learner groups to inform evidence-based approaches for fostering the literacy skills needed for lifelong and life-wide learning. The course deepens pre-service teachers' understanding of major theories and perspectives on literacy acquisition and development, evolving definitions of and current and emerging issues on literacy, and evidence-based approaches in developing appropriate literacy skills. This preparatory course serves as an introduction for specialization courses on early literacy instruction in grades K-3 and the development of discipline-specific literacies in Grades 4 to 12. Pre-service teachers participate in oral presentations, viewing activities, workshops and observations emphasizing literacy-supportive learning environments and informing a learner-centered philosophy of literacy teaching. They analyze literacy needs, design literacy activities across domains and stages, and plan culturally responsive instruction across contexts and disciplines.

Course Title	Learner-Centered Teaching
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course comprises in-depth study of the foundations and principles of learner-centered teaching and assessment that can be applied in diverse learning settings. It strengthens pre-service teachers' capacity to connect what they know about learners' characteristics, the Science of Learning, and inclusive teaching approaches and assessment practices that cater to the diverse backgrounds, needs, interests, and contexts of learners—while building safe, supportive, and equitable learning environments. The course involves examinations on key theories and emerging issues in learner diversity and inclusion in the Philippines, comparative analysis of learner-centered approaches and assessments for different settings, and exploration of teaching and assessment strategies across modalities. The course engages pre-service teachers in experiential and reflective activities including case scenario analysis, learner profiling, collaborative activities, and observations focusing on learner-centered approaches for different settings. Culminating tasks include a classroom management plan tailored to learner profiles and physical/digital learning spaces and a learning plan with demonstration teaching and post-teaching reflection.

Course Title	Learner Assessment
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course develops pre-service teachers' ability to monitor, evaluate, support, and report student learning through sound assessment design and data-informed instructional decision-making. The course emphasizes designing, organizing, implementing, interpreting, and reporting results of assessments that support making informed decisions to enhance instructional effectiveness and improve learner outcomes. The course covers essential assessment concepts, including valid, reliable, fair, and ethical assessment practices for diagnostic, formative, and summative purposes, authentic and performance-based assessment, use of technology in assessment, and data analytics in education, with careful attention to diverse learner needs, accessibility, and equitable reporting of learner needs, progress, and achievement to key stakeholders. Pre-service teachers engage in activities such as constructing tests, developing rubrics, checklists, and rating scales; analyzing and reporting assessment data; utilizing digital assessment tools; and practicing various ways to provide constructive feedback and stakeholder communications. The course culminates in the development of a comprehensive assessment plan – clearly unpacked to include multiple tools, data sources, and strategies that demonstrate an integrated understanding of assessment for learning, of learning, and as learning.

Course Title	The Teacher as a Person and as a Professional
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course enables pre-service teachers to demonstrate deep regard for teaching as a personal and professional commitment rooted in psychosocial and legal foundations. It immerses pre-service teachers in experiences that reveal the inextricable link between individual identity and professional practice. It ultimately examines how personal values, experiences, and beliefs shape teaching philosophies and approaches while developing mindfulness around holistic well-being, work-life balance, lifelong learning, and ethical responsibility that yields long-term success in the field. Experiential learning activities move from self-understanding to professional action premised on reflective and collaborative inquiry through case studies, simulations, and growth reflection essays. At the end of the course, pre-service teachers prepare a portfolio featuring a series of their reflections and culminating in a plan for personal and professional development for the period of teaching internship and the first three years of teaching, aligned with professional standards and behavioral indicators that uphold the dignity of teaching.

Course Title	Principles and Practices of Homeroom Guidance
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the essential knowledge, skills, and values to design and facilitate effective homeroom guidance that supports learners' academic, personal-social, and career development within the Philippine education system. The course builds a strong grounding in the nature of homeroom guidance and its historical, legal, and ethical foundations. It delves into strategies for providing academic, personal, social, and career development support to learners, while simultaneously strengthening the pre-service teachers' advising and mentoring capabilities. The course design incorporates experiential learning activities that connect to contemporary school realities (e.g., learner well-being, bullying prevention, diverse learners in difficult circumstances, and collaboration with guidance counselors, families, and communities). Pre-service teachers develop strengths- and wellness-oriented approaches as well as practical skills, such as psychological first aid, learner assessment, record-keeping, and basic counseling-informed (non-therapy) interventions, through workshops, simulations, reflection exercises, and the use of applied tools. Assessment involves a combination of, authentic practitioner engagement, self-assessment reflections and application of principles to design a developmentally sequenced homeroom guidance facilitation guide with differentiated strategies, resources, and assessment plans.

Annex B
Descriptions of BEd Specialization Courses

B.1 Bachelor of Education Major in ENGLISH

Course Title	Foundations of Linguistics for Teachers
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This foundational course explores the scientific study of human language as a complex, rule-governed, and dynamic system. It focuses on investigating the underlying structures, systems, and rules that govern languages to understand how language works, to appreciate its diversity, and to correct misconceptions about language. The course introduces the core components of language, which include phonetics (the sounds of language), phonology (sound system), morphology (word formation), syntax (sentence structure), and semantics (meaning), including sociolinguistics and pragmatics, to recognize language variations and understand how social context influences communication. Pre-service teachers will use phonetic transcription, explore morphemes, examine grammar, analyze data, work on linguistic problem sets, and draw implications of theory for classroom practice to address challenges in grammar instruction, vocabulary development, reading comprehension, and social interactions. The course employs a blend of direct instruction, collaborative inquiry, and hands-on application. As an end-of-term output, the pre-service teachers are expected to identify a specific linguistic concern in the classroom and propose a targeted instructional intervention.

Course Title	Language Acquisition and Learning in Multilingual Contexts
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course aims to develop a critical and comprehensive understanding of first- and second-language acquisition and their application to effective English language teaching in multilingual and multicultural contexts. Pre-service teachers examine major theories (behaviorist, innatist, cognitive, interactionist, connectionist, sociocultural, constructivist, translanguaging) and key perspectives, such as Krashen's Five Hypotheses, Long's Interaction Hypothesis, and Lenneberg's Critical Period Hypothesis. The course further explores the complex interactions among cognitive, affective, social, and environmental factors that affect language acquisition and learning in multilingual contexts. Through lecture-discussions, research article reviews, case studies, and reflective tasks, pre-service teachers bridge theory and practice by completing critiques, analyses, and observation reports. Assessments include quizzes, performance tasks, and reflective journals that evaluate pre-service teachers' ability to analyze principles in English language acquisition and learning in multilingual contexts.

Course Title	Literatures of the Philippines, East, South, and Southeast Asia
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course surveys representative literature from the Philippines, East Asia (China and Japan), South Asia (India), and Southeast Asian nations to examine shifting values and philosophies in their

	sociocultural and historical contexts. Exploring a diverse range of genres (poetry, traditional literature, short story, novel, drama, and creative non-fiction), the course will cover themes such as identity, colonialism and postcolonialism, nationalism, diaspora, and the interplay of tradition and modernity. Philippine literature in English is central to the course in upholding connections with Asian nations. Pre-service teachers will primarily engage in in-depth reading to cultivate a critical appreciation of literature as a product and a critique of its historical context. Instructional activities will include interactive discussions, workshops, literature circles, and creative tasks using multimedia tools. As an end-of-term output, pre-service teachers write a comparative literary analysis (whether by the same author, or the same genre from similar or contrasting cultures) that draws deeper insights into themes, literary elements, and stylistic devices.
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Course Title	Structure of English
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course focuses on a systematic and analytical study of the grammatical and syntactic structures of modern English through a descriptive and functional approach. The course explores the core components of English grammar, from morphology and word classes to complex sentence patterns, to understand how English works as a system for making meaning. With a substantial understanding of language, pre-service teachers can critically evaluate the use of English in instruction. In exploring the core components and structure of English grammar, the course covers basic grammatical concepts and analysis (the parts of speech), clauses (complements, modifiers, phrases), verb systems and meaning (tense and aspect, auxiliary verbs and modals, transitivity, and voice), complex structures (coordination and subordination, and conditional sentences), and grammar in discourse and application (cohesion and coherence and stylistic grammar). Designed to be highly interactive and application-based, the course blends lectures, workshops, and hands-on collaborative practice sessions for analyzing sentences and syntactic structures. The pre-service teachers design differentiated tasks, worksheets, and/or digital activities to teach specific grammatical points.

Course Title	Literatures of Africa and the Western Nations
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course surveys selected literary texts from various countries of Africa (Nigeria, South Africa, Senegal, Kenya, and Egypt), the Americas (North America and Latin America), the United Kingdom, and Europe to critically analyze how history, philosophy, culture, geography, and other factors have helped shape literary traditions from across the globe. Exploring the universal themes of identity, conflict, love, justice, and the search for meaning, pre-service teachers investigate how different cultures approach similar human experiences through the lens of representative authors who uniquely retell them. This course is delivered through critical analyses, photo essays, creative performances, collaborative projects, student-led seminars, and other multimodal outputs. It culminates in a critical comparative analysis paper on the recurring themes and styles of selected authors, genres, or literary traditions, which can be presented through digital public resources such as websites or podcasts.

Course Title	Campus Journalism
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Structure of English Foundations of Linguistics for Teachers
Description	This course provides pre-service teachers with the fundamental theories and practical skills of campus journalism in both print and digital environments. It aims to develop pre-service teachers' competencies in journalistic writing, media production, and publication management. It also prepares pre-service teachers for their crucial roles as school paper advisers, enabling them to mentor young journalists and manage a campus publication. The focus is on the core principles of journalism, media ethics, and legal considerations relevant to school publications. Pre-service teachers engage in intensive training in various journalistic forms, including news, feature, editorial, column, and sports writing, as well as in technical skills in copyediting, headline writing, layout and design, and photojournalism, across both printed and digital media. A significant portion of the course is dedicated to the principles of school paper management and advisorship in the Philippine context. Pre-service teachers will engage in intensive writing workshops, peer editing sessions, and simulations of publication production. The course culminates in developing a comprehensive portfolio of journalistic works or collaboratively producing a complete mock campus publication in either print or digital format.

Course Title	Language Pedagogy and Assessment in Multicultural Contexts
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Structure of English
Description	This course develops pre-service teachers' competencies in teaching and assessing grammar alongside the macro skills of listening, speaking, reading, writing, and viewing. It emphasizes evidence-based and emerging strategies that develop communicative competence, critical thinking, and meaningful language use in diverse, multicultural learning environments. Pre-service teachers design integrated lessons and assessments that develop learners' overall language competence. They also develop skills in designing differentiated and innovative strategies and authentic assessment tools. Through interactive discussions, lesson planning, micro-teaching, and performance-based tasks, pre-service teachers explore and apply the principles and practices of effective language assessment and pedagogy. The course's hands-on approach prepares them to create inclusive, engaging, real-world language-learning experiences that support learners in diverse learning situations.

Course Title	Literary Criticism
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Literatures of the Philippines, East, South, and Southeast Asia Literatures of Africa and the Western Nations
Description	This course explores major movements and concepts in literary theory and criticism from classical foundations to contemporary approaches. It equips pre-service teachers with a range of critical lenses for interpreting texts, fostering critical thinking, and deepening their literary appreciation. These theoretical approaches will be analyzed for their strengths and limitations in interpreting given literary texts, along with their unique interpretive possibilities. The course highlights the importance of literary theory in teaching

	literature. Readings cover excerpts from critical theories on Historical and Biographical, Formalism and New Criticism, Structuralism and Poststructuralism, Reader-Response, Psychoanalytic, Marxist and Critical Theory, Feminist and Queer, and Postcolonial and New Historicism, which are applied to various genres (short story, poetry, novel, and play) commonly taught in DepEd Key Stages 2 and 4. The course encourages active participation and collaboration through mini-lectures on theoretical overviews, student-led discussions of the weekly readings, and workshops in which pre-service teachers write short analytical essays applying theoretical lenses. As an end-of-term output, pre-service teachers create a session guide that includes objectives, discussion questions, and recurring symbols and themes, focusing on a critical lens for analyzing a literary text for a specific grade level.
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Course Title	Teaching and Assessment of Literature
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Literatures of the Philippines, East, South, and Southeast Asia Literatures of Africa and the Western Nations
Description	This course prepares pre-service teachers with the theoretical knowledge and practical strategies needed to teach and assess literature effectively in diverse classroom contexts. It explores various literary genres—poetry, drama, fiction, and non-fiction—while emphasizing the development of learners' critical thinking, interpretive, and aesthetic appreciation skills. Through engagement with classical and contemporary texts, pre-service teachers will learn to design inclusive and learner-centered literature lessons that foster empathy, cultural awareness, and creativity. The course also examines a range of assessment approaches, from formative discussions and performance-based tasks to analytical essays and digital projects, ensuring alignment with learning outcomes and standards. Pre-service teachers will engage in lesson planning, microteaching, and reflective practice to strengthen their pedagogical competence. By the end of the course, pre-service teachers integrate literary theory with practical classroom methodologies, use literature as a tool for language development, and apply fair, valid, and reliable assessment techniques to evaluate learners' literary understanding and engagement.

Course Title	Technology-Enhanced Pedagogies in Language and Literature Instruction
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers of English with the foundational knowledge, pedagogical skills, and critical perspectives necessary to integrate technology into language and literature instruction. Its primary objective is to cultivate adaptive expertise for making informed, principled pedagogical decisions relevant to contemporary Philippine classrooms. The content balances core educational technology theories, such as Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL), with frameworks like Technological Pedagogical Content Knowledge (TPACK) and digital literacies. It critically analyzes technology's role across various instructional delivery modes (e.g., distance education, flipped classrooms, blended learning) and tackles emerging advancements, notably Artificial Intelligence (AI) in language or literature teaching, emphasizing ethical considerations, such as data privacy and critical AI literacy. Primarily delivered through a combination of interactive workshops, digital or printed modules,

	and collaborative design challenges, the teaching and assessment methods emphasize hands-on exploration, peer teaching, and reflective practice. Learning occurs through the critical analysis of digital tools and the design of technology-enhanced activities. Moreover, the course culminates in the development of a portfolio of theoretically grounded, context-appropriate technology-integrated lesson plans and a teaching demonstration.
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Course Title	Language and Literature Research 1
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the essential knowledge and skills in designing evidence-based research in English language education and/or literary studies. Through theoretical and practical aspects of language and literature research, pre-service teachers identify research gaps, review and synthesize related literature, select appropriate research designs and tools, and present a scholarly research proposal. The course covers the review of fundamental research concepts, problem formulation, literature review, research methodology, and ethical considerations in English-language and literary contexts, with proper citation and referencing. Rhetorical moves and sub-moves (CARS model) are also integrated into this course to support the development of a coherent, well-justified research problem. As an output, the proposal follows a publishable structure, guided by international conventions in research writing. The coursework is organized around incremental tasks that culminate in a presentation of an evidence-based, ethically sound research proposal in language and/or literature.

Course Title	Language and Literature Research 2
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Language and Literature Research 1
Description	This course is a continuation of Language and Literature Research 1, which further equips pre-service teachers with the knowledge and skills to conduct and analyze evidence-based research in English language education and/or literary studies. It deepens their understanding of research fundamentals, with an emphasis on data analysis and interpretation, as well as on writing the results and discussion sections. The course highlights the application of the data collection techniques, data analysis and interpretation guidelines, and academic research writing style. Promoting active learning, critical engagement, and academic rigor, the course offers pre-service teachers a blend of lectures, research workshops, surveys of relevant, peer-reviewed articles, and collaborative discussions. The coursework is organized around incremental tasks that culminate in an oral defense of the evidence-based, ethically sound research. As an output, the final manuscript follows a publishable structure, guided by the international conventions in research writing.

Course Title	Materials Development for Language Arts and Literature
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the knowledge and skills to design, create, and evaluate pedagogically sound and contextually relevant learning materials for language arts and literature instruction. It guides them through foundational concepts, including learner-centered design and authenticity principles in materials development, progressing systematically from theoretical

	frameworks to practical application. Pre-service teachers explore the intersection of pedagogical theory and material design to create instructional resources that enhance learning outcomes for their future learners. Through lectures, small-group discussions, workshops, and peer reviews, pre-service teachers engage in collaborative, experiential learning activities that emphasize both conceptual understanding and real-world implementation. Utilizing required readings and digital tools throughout the course, they are required to design authentic materials, maintain reflective journals, and participate in peer feedback sessions, allowing them to apply theoretical concepts to practical contexts in addressing educational needs and contexts. Assessment combines project-based evaluations and written assignments that demonstrate mastery of material development in language arts and literature teaching.
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Course Title	Multimodal Communication for Teachers of English
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers of English with advanced competencies in written and oral communication across various modes and media within contemporary 21st-century classroom multimodal frameworks. Pre-service teachers develop technical writing proficiency through producing academic papers and professional documents while simultaneously enhancing their public speaking, creative expression, and presentation skills. The course emphasizes the strategic integration of visual, digital, and linguistic elements to communicate effectively in educational settings. Pre-service teachers engage in creating and analyzing multimodal texts, including speeches, paper presentations, infographics, scripts, digital stories, and professional correspondence. Through authentic performance tasks and project-based learning, pre-service teachers design and deliver purposeful, audience-responsive multimodal instructional content that supports inclusive English language teaching in diverse Filipino classrooms. The course prepares preservice teachers to model exemplary communication practices and facilitate multimodal literacy development in alignment with contemporary pedagogical demands and K-12 curriculum standards. It equips pre-service teachers with competencies in analyzing, designing, and assessing multimodal texts across print, visual, digital, and performance-based modes within multilingual and multicultural educational contexts.

Course Title	Language Education Curriculum
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Language Pedagogy and Assessment in Multicultural Contexts
Description	This course provides pre-service teachers with essential foundations in language curriculum development across diverse educational contexts. Through an examination of key theories, principles, models, approaches, and policy foundations of language curricula, pre-service teachers gain expertise in designing effective language programs and curricula that respond to varied learning environments. Pre-service teachers survey and analyze various language curriculum models, critically examine their strengths and limitations, and learn practical strategies for unpacking curriculum standards into actionable, teachable teaching objectives while conducting needs analyses and ensuring alignment with national and international benchmarks, including multilingual realities and 21st-century skills. Through interactive discussions, case study examinations, and hands-on workshops, pre-service teachers master systematic approaches to unpack competencies into coherent instructional objectives. They learn to

	balance theoretical frameworks with practical classroom applications, preparing them to design culturally responsive and pedagogically sound language curricula. Assessments employ formative and performance-based methods, including reflective journals, collaborative presentations, curriculum standards unpacking exercises, and comparative curriculum analysis, ensuring deep engagement with course concepts and their practical implementation.
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Course Title	Reading Assessment and Intervention
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Language Pedagogy and Assessment in Multicultural Contexts
Description	This course equips pre-service teachers with the knowledge and skills to assess reading difficulties and design needs-based reading intervention plans for diverse learners. It focuses on the use of informal reading assessment tools (e.g., Informal Reading Inventories) and formal reading assessments (e.g., PISA-like reading literacy tasks), interpretation of diagnostic data, preparation of individual reading diagnostic reports, and the design of domain-specific interventions in word recognition and spelling, reading fluency, vocabulary, and reading comprehension. Grounded in the science of reading and a balanced approach to literacy, the course emphasizes inclusive, developmental, culturally responsive, and evidence-based instruction for learners in secondary schools, recognizing that many Filipino learners at these levels continue to struggle with decoding and comprehension in English. Learning experiences include lectures, workshops, micro-teaching, and case-based discussions, culminating in a diagnostic and intervention portfolio that demonstrates pre-service teachers' ability to assess, plan, implement, and reflect on reading interventions.

B.2 Batsilyer ng Edukasyon Medyor sa FILIPINO

Course Title	Batayang Kaalaman sa Wika
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay naglalayong pag-aralan ang wikang Filipino bilang isang sistemang pangwika. Tatalakayin sa kurso ang Filipino bilang isang wika, penomenon at pambansang lingua franca na nagbubuklod sa ugnayang kultural at komunikatibo. Magiging pundasyon ang kurso upang tingnan ang kasaysayan at kalagayang pangwika kasabay sa hamon ng nagbabagong panahon. Sa pamamagitan ng kurso, magiging malinaw ang pagtanaw sa wika bilang mahalagang pundasyon ng ugnayang pagtuturo at pagkatuto.

Course Title	Panimulang Lingguwistika
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Batayang Kaalaman sa Wika
Description	Ang kursong ito ay naglalayong ipakilala sa mga mag-aaral ang mga batayang konsepto, prinsipyo, at teorya ng lingguwistika bilang agham ng wika. Tinutukoy at sinusuri nito ang mga pangunahing sangkap ng wika—ponolohiya, morpolohiya, sintaksis, semantika, at pragmatika—upang maunawaan ang estruktura at paggamit ng wikang Filipino sa iba't ibang konteksto. Binibigyang-diin din ng kurso ang aplikasyon ng mga kaalamang lingguwistiko sa pagtuturo ng Filipino, kabilang ang pagbuo ng mga banghay-aralin at kagamitang panturo na nakabatay sa mga

	teoryang lingguwistiko. Sa kabuuan, inaasahang maihahanda ng kursong ito ang mga mag-aaral na maging mapanuri at mapanlikhang guro ng Filipino na bihasa sa paggamit ng wika bilang kasangkapan sa mabisang komunikasyon at pagkatuto.
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Course Title	Patakarang Pangwika at Multilingguwalismo
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay tumatalakay sa mga patakarang pangwika sa Pilipinas at ang kanilang implikasyon sa multilingguwal na konteksto ng bansa. Susuriin nito ang Mother Tongue-Based Multilingual Education (MTB-MLE), bilingual education policy, at iba pang mga modelo ng edukasyong multilingguwal. Tatalakayin ang mga ito sa liwanag ng mga teorya ng pagkatuto ng wika at mga dalumat ng code-switching, translanguaging, at linguistic repertoire sa silid-aralan. Matuturuan nito ang mga pre-service na guro na makilala ang linguistic resources ng kanilang mga mag-aaral at gamitin ito bilang pundasyon ng pagkatuto.

Course Title	Ang Filipino sa Kurikulum ng Batayang Edukasyon
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay may tuon sa kasaysayan, nilalaman, at implementasyon ng Filipino sa umiiral na kurikulum sa batayang edukasyon sa Pilipinas. Tatalakayin nito ang learning standards, domains, at competencies mula Kindergarten hanggang Senior High School at kung paanong ang kamalayang pangkurikulum ay mahalaga sa pagtupad ng mga kahingian ng professional teaching standards. Ipakikita rin nito na ang kurikulum ay bunga ng pagsasalikop ng iba't ibang mga kahingian at patakaran.

Course Title	Mga Obra ng Panitikang Pilipino
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay mapanuring paglalakbay sa pag-unlad ng panitikang Pilipino mula ng sinauna hanggang kontemporaneong panahon. Ang pagdanas sa iba't ibang genre- tula, maikling kuwento, nobela, dula, sanaysay atbp- sa kanilang historikal, kultural, at sosyolohikal na konteksto ang pangunahing tuon ng kurso upang maihanda ang mga pre-service na guro sa paggamit ng panitikan sa pagpapahusay ng mga kasanayan ng mga mag-aaral.

Course Title	Pagtuturo at Pagtataya ng mga Makrong Kasanayan sa Filipino
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Sa kursong ito maigting na pag-uugnayin ang pagtuturo at pagtataya ng mga makrong kasanayan sa pagtanggap (pagbasa, pakikinig, at panonood) at paglikha (pagsasalita at pagsulat). Magiging kasangkapan ang simulain, prinsipyo, at pananaw sa pagtuturo at pagtatayang multimodal tungo sa multiliterasi.

Course Title	Paghahanda at Ebalwasyon ng Kagamitang Panturo
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay nagpapaunlad ng kasanayan sa paglikha at

	pagtataya ng mga epektibong kagamitang panturo para sa asignaturang Filipino. Binibigyang-tuon dito ang mga simulain at praktika ng disenyo ng mga karanasan sa pagkatuto gamit ang ilang huwaran at inobatibong kagamitan.
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Course Title	Pagtuturo ng Filipino Bilang Banyagang Wika
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Pagtuturo at Pagtataya ng mga Makrong Kasanayan sa Filipino
Description	Ang kursong ito ay maghahanda sa mga pre-service teacher sa pagtuturo ng wika at kulturang Filipino sa mga banyaga. Saklaw ng kurso ang mga pangunahing teorya at modelo sa pagtuturo ng banyagang wika, ang pagpili ng mga epektibong estratehiya at gawain, ang paghahanda ng mga angkop na kagamitang panturo, at ang pagtataya ng kakayahang pangwika. Sa pagtatapos ng kurso, inaasahang makapagdidisenyo ang mga pre-service teacher ng isang modyul sa pagtuturo ng wika at kulturang Filipino na angkop sa natatanging kalikasan at pangangailangan ng mga banyagang mag-aaral.

Course Title	Pagsasalin sa Iba't Ibang Disiplina
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay naglalayong linangin ang kakayahan sa batayang pagsasalin ng piling tekstong teknikal o pragmatiko at pampanitikan bilang ambag sa intelektuwalisasyon ng wikang Filipino. Saklaw ng kurso ang kasaysayan at pag-unlad ng pagsasalin sa Pilipinas, ang mga pangunahing teorya at prinsipyo sa pagsasalin, ang proseso ng pagsasalang teknikal o pragmatiko at pampanitikan, at ang ebalwasyon ng salin. Masasaklaw rin sa kurso ang pagsusuri sa mga halimbawang saling-teksto at materyal. Sa pagtatapos ng kurso, inaasahang makakabuo ang mga pre-service teacher ng portfolio ng mga salin na puwedeng magamit sa pagtuturo.

Course Title	Panunuring Pampanitikan
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Mga Obra ng Panitikang Pilipino
Description	Ang kursong ito ay naglalayong linangin ang kakayahan ng mga pre-service teacher sa mas malalim na pag-unawa, pagsusuri, at pagpapahalaga sa mga panitikang Pilipino sa lente ng iba't ibang teorya o pananaw pampanitikan. Saklaw ng kurso ang kasaysayan at pag-unlad ng kritisismong pampanitikan, ang mga pananaw o teoryang pampanitikan sa modernong panahon, at ang pagsusuri sa iba't ibang genre ng panitikang Pilipino gamit ang nasabing mga pananaw o teorya. Lilinangin din ang kakayahan ng mga pre-service teacher sa pagtuturo ng kritisismo sa mga klase sa literatura. Sa pagtatapos ng kurso, inaasahang makasusulat ang mga mag-aaral ng kritikal na papel na nagsusuri sa isang akda at ng banghay-aralin na nagpapakita ng pagtuturo ng kritisismo sa klase sa literatura.

Course Title	Malikhaing Pagsulat
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay sumasaklaw sa pag-aaral ng ilang pangunahing kaalaman sa malikhaing pagsulat bilang pagpapanatag ng kamalayan at estetikang pampanitikan. Bibigyang pokus sa pag-aaral ang mga batayang kaalaman sa malikhaing pagsulat: ang genre ng tula, sanaysay, maikling katha,

	dula, dagli, kuwentong pambata, atbp.
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Course Title	Pamamahayag Pangkampus
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay tumatalakay sa mga batayang kaalaman, kasanayan, at kaugalian sa malaya subalit etikal na pamamahayag. Tinutukoy at niilalang nito ang kasanayan sa pagsulat ng balita, lathalaing, editorial, kolum, at iba pang anyo ng pahayag journalistiko. Binibigyang-diin din ng kurso ang mga kasanayan sa komunikasyong pangmidya—radyo, telebisyon, at mga digital na plataporma—bilang daluyan ng impormasyon at edukasyon. Sa pamamagitan ng aktuwal na proyekto sa produksiyong pangkampus, nahuhubog ang mga mag-aaral bilang mamamahayag na may pananagutang panlipunan at etikal na kamalayan.

Course Title	Rehiyonal na Wika
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Batayang Kaalaman sa Wika
Description	Ang kursong ito ay tumatalunton sa pag-aaral ng mga rehiyonal at katutubong wika sa Pilipinas bilang mahalagang salik ng multilinggwal at multikultural na identidad ng bansa. Niilalang nito ang kasanayang komunikatibo at interkultural ng mga mag-aaral sa pamamagitan ng pagsisiyasat sa estruktura, gamit, at kultura ng napiling rehiyonal na wika (hal. Cebuano, Meranaw, Ilokano, Hiligaynon, Waray, atbp.). Binibigyang-diin ng kurso ang paggamit ng wika sa mga praktikal at edukasyonal na konteksto, kabilang ang pagsasalain, lokal na panitikan, at komunikasyong pangkomunidad. Sa pamamagitan ng mga proyekto at presentasyong pangwika, nahuhubog ang kamalayang kultural at glokal ng mga mag-aaral bilang guro ng wikang Filipino.

Course Title	Banyagang Wika
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay naglalayong linangin ang kakayahan ng mga pre-service teacher sa paggamit ng banyagang wika sa pagbuo ng mga batayang ekspresyon at pahayag sa pang-araw-araw na komunikasyon. Nakabatay sa antas A1 ng Common European Framework of Reference (CEFR) for Languages, saklaw ng kurso ang palatunugan at palabuuan ng salita o payak na pangungusap sa banyagawang wika; ang batayang paggamit ng wika sa mga pangangailangang interaksyonal, instrumental, personal, heuristiko at impormatibo; at ang batayang pakikipag-interaksyon. Sa pagtatapos ng kurso, inaasahang magiging kuwalipikado ang mga mag-aaral sa pagkuha ng pagsusulit para sa diploma ng CEFR – A1. (Ang institusyon ang pipili ng partikular na banyagang wikang ituturo.)

Course Title	Pananaliksik sa Edukasyong Filipino 1
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay naglalayong makabuo ng isang panukalang saliksik (research proposal) sa edukasyong pangwika, ihahatid sa pamamagitan ng mga patuklas na mga palihan ang mga batayang kaalaman, teorya, at metodo ng pananaliksik kabilang na ang mga etikal na pamantayan. Bagaman ang pangunahing tuon ng pananaliksik ay mga isyu sa edukasyong pangwika, ibubukas ang

	mga talakayan at gawain para sa mga kaugnay na larang. Itataguyod ng kurso ang mga pangunahing kahingian ng pagpapakadalubhasa sa teorya at praktika ng edukasyon.
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Course Title	Pananaliksik sa Edukasyong Filipino 2
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Pagtuturo at Pagtataya ng mga Makrong Kasanayan sa Filipino
Description	Ang kursong ito ay naglalayong makabuo ng isang batayang pananaliksik (Basic Research) sa edukasyong pangwika, ihahatid sa pamamagitan ng mga patuklas na mga palihan ang mga batayang kaalaman, teorya, at metodo ng pananaliksik kabilang na ang mga etikal na pamantayan. Bagaman ang pangunahing tuon ng pananaliksik ay mga isyu sa edukasyong pangwika, ibubukas ang mga talakayan at gawain para sa mga kaugnay na larang. Itataguyod ng kurso ang mga pangunahing kahingian ng pagpapakadalubhasa sa teorya at praktika ng edukasyon.

Course Title	Ang Guro ng Filipino sa Kaunlarang Pampamayanan
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Ang kursong ito ay sumusuri sa papel ng guro ng Filipino bilang tagabunsod ng pagbabago at kaunlaran sa pamayanan. Tatalakayin nito ang kahalagahan ng paggagad at pagbabad sa pamayanan upang palakasin ang ugnayan ng mga kasapi nito sa paaralan. Gagamitin ang mga karanasan sa pamayanan bilang batayan ng paglikha ng parehong personal at propesyonal na tugon sa mga isyung panlipunan. Lunsaran ang kursong ito sa pagpapaigting sa pag-ako ng pre-service na guro sa kaniyang tungkuling maglingkod.

B.3 Bachelor of Education Major in MATHEMATICS

Course Title	Algebraic Thinking and Reasoning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course focuses on developing pre-service teachers' comprehension of algebra utilizing a structural rather than a procedural approach. It fosters appreciation of the importance of proper arithmetical foundations in the development of pre-service teachers' algebraic thinking and reasoning and the alignment of arithmetical and algebraic teaching and learning. Pre-service teachers use arithmetical and algebraic reasoning in learning (a) generalization and formulation of arithmetic operations, (b) manipulation and transformation of expressions, equations, and inequalities through various operations and syntax, (c) analysis of mathematical structures, (d) relations and functions, and (e) algebraic language and representation. The course includes early or pre-algebra, explicitly supporting the transition from arithmetic to algebra and highlighting common conceptual errors that arise in classrooms with learners. Activities that encourage divergent thinking, pattern recognition and creation, and mathematical modelling form standard segments of the course. By the end of the course, pre-service teachers demonstrate a structural understanding of equivalence and functions and effectively use arithmetical and algebraic reasoning to model, represent, and solve equations, inequalities, and convergent and divergent tasks, aligning foundational arithmetic with core ideas of algebra for

	pre-service teachers.
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Course Title	Geometric Thinking and Reasoning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course immerses pre-service teachers in the dynamic processes of geometric thinking and reasoning. Pre-service teachers engage in conjecturing, making arguments, constructing and critically analyzing proofs related to the properties and relationships of geometric figures, and solving problems with real-world applications. The course explores the foundational structures of Euclidean geometry, moving from informal justification to formal deductive proof. Key topics include foundation of geometric reasoning, congruence and similarity of figures, properties of quadrilaterals and circles, transformation through rigid motions, measurement and solid geometry, leveraging technology to foster collaboration and deepen understanding. The course models a culturally inclusive and socially responsive pedagogy by framing geometric concepts within relevant real-world contexts. Pre-service teachers are exposed to varied strategies such as group discussions, spatial visualization, and nature walks, alongside assessments that include proof portfolios and socio-geometric projects that challenge pre-service teachers to explore the cultural, technological, and social implications of geometry.

Course Title	Discrete Mathematics
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course covers different topics in sets, logic, and combinatorics. It begins with a formal study of the abstract mathematical concepts of sets and logic, providing the pre-service teachers a setting for learning how to write mathematical proofs. Counting techniques are used to calculate the number of elements in a set of objects or arrangements to prepare pre-service teachers for studying basic probability. Combinatorial reasoning is further developed by solving problems and applying principles like mathematical induction, inclusion-exclusion, and pigeonhole in constructing proofs. Graph theoretic concepts and algorithms are introduced and applied to network problems involving the construction of Hamiltonian and Eulerian cycles, spanning trees, and shortest paths. Pre-service teachers experience individual and collaborative problem solving and problem posing, use technology to do tedious mathematical tasks, and propose possible mathematical investigations that are realistic and in the context of their future learners. Pre-service teachers are also encouraged to reflect on their learning experiences to anticipate difficulties and provide intervention for their future learners.

Course Title	Number Theory
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course develops a deep conceptual understanding of the arithmetic of integers by focusing on formal mathematical definitions and proofs of the properties of integers. Using precise mathematical definitions, pre-service teachers prove theorems on divisibility, prime numbers, and greatest common divisors. A venue for the use of technology and simple computer programming is provided through the Euclidean algorithm and the solution of linear Diophantine equations. Algebraic reasoning is fostered by

	performing modular arithmetic operations and exploring the algebraic structure of the modular classes. Number theoretic concepts are then applied to cryptography, e.g., coding and decoding messages, detecting errors in typing and transmitting International Standard Book Numbers (ISBN), Universal Product Codes (UPC) and credit card numbers. The learning experience is enhanced by individual and collaborative problem solving and problem posing, compiling different applications of modular arithmetic and prime numbers, creating games that develop arithmetic number theoretic skills, and proposing possible mathematical investigations that can be pursued by future learners.
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Course Title	Curriculum, Contexts, Trends, and Issues in Mathematics Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Principles and Strategies in Teaching Mathematics
Description	This course provides an integrative study of mathematics curricula, the contexts of mathematics learning, and the contemporary trends and issues influencing mathematics education. It emphasizes curriculum design and reform, policy frameworks, and sociocultural factors that shape mathematics teaching and learning in both national and international settings. Pre-service teachers analyze mathematics curriculum frameworks and pedagogical practices from selected countries to gain a broader and comparative understanding of curriculum development and implementation, and examine current and emerging issues such as technology integration, inquiry-based and problem-solving approaches, assessment innovations, inclusion and equity, considerations of families, elders, and communities, and the impact of digital transformation and artificial intelligence in education. They also analyze local curricular materials, unpack mathematical competencies, and develop unit or weekly instructional plans that respond to learners' needs. By the end of the course, pre-service teachers demonstrate informed perspectives on how curriculum, trends, and issues intersect to shape mathematics education and clearly articulate their professional roles in promoting innovation, equity, and quality in mathematics teaching and learning, while applying comparative insights, aligning curricular decisions with policy and context, and designing coherent, assessment-informed plans that advance meaningful mathematics learning for diverse learners.

Course Title	Mathematics of Investment
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Algebraic Thinking and Reasoning
Description	This course facilitates the understanding of mathematical applications to business, economics, and accounting for pre-service teachers in a meaningful way, with a focus on the concept of time and interest. The course examines simple and compound interest as foundational principles of the time value of money and extends to discounting, annuities, depreciation, amortization, bond valuation, yield analysis, and sinking funds. Emphasis is placed on structured financial modeling, comparative analysis of financial instruments, and contextual interpretation of results. Pre-service teachers evaluate the long-term implications of financial decisions within the contexts of sustainability, equity, and national economic priorities, positioning financial mathematics as both a rigorous analytical discipline and a tool for responsible decision-making. The pre-service teachers use technological tools, spreadsheets, and/or financial software for modeling purposes to generate economic scenarios, which helps them engage in

	analysis, comparison, and ultimate decision-making with speed and accuracy. Designed as a TPACK-laden and multidimensionally assessed course, pre-service teachers learn mathematics through engaging in problem-solving tasks, simulations, and case studies that promote a connection between theory and practice. Through their professional practice, social responsibility, and national aspirations, pre-service teachers are expected to demonstrate a level of technical proficiency at the end of the course and, more importantly, that they can apply investment mathematics as a tool.
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Course Title	Trigonometry
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Geometric Thinking and Reasoning
Description	This course provides pre-service teachers with a deep conceptual and procedural understanding of trigonometric and circular functions, emphasizing the interconnectedness of algebraic, geometric, and graphical representations of periodic phenomena, and fostering robust problem-solving skills through the analysis of routine, non-routine, and real-world problems across different fields. The course begins by establishing a strong foundation, exploring the definitions of trigonometric functions using both right triangles and the unit circle, which enables pre-service teachers to evaluate functions for any angle. The course then progresses to analyzing the graphs of the six trigonometric functions and their inverses, focusing on key characteristics like amplitude, period, and phase shift to model periodic phenomena. Pre-service teachers deepen their analytical skills by manipulating and proving a wide range of identities—including sum, difference, and double-angle formulas—and solving complex equations through multiple methods. The course also includes the application of trigonometry in the solution of oblique triangles and in the discussion of a polar coordinate system. The course integrates technology, such as graphing utilities and dynamic geometry software, which is used in tandem with collaborative discussions and interactive activities.

Course Title	Precalculus
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Algebraic Thinking and Reasoning
Description	This course prepares the pre-service teachers for the study of calculus. It begins with analytic geometry to equip pre-service teachers with tools for graphing equations. The focus of the course is the study of functions—the definition of functions, operations on functions, the different types of functions (polynomial, rational, exponential, logarithmic, trigonometric), and their applications. After a short review of trigonometric functions, polar coordinates, and graphs of polar curves are explored. Technological tools like spreadsheets, computer algebra systems (CAS), and graphing applications will be used for exploration and modeling tasks. The course ends with a discussion of sequences and series. Attention is given to graphing functions with or without the aid of technology and applying functions to model real life situations. The pre-service teachers will also draw from their experiences in the course and in high school to analyze difficulties and misconceptions that might be encountered by their future learners in order that they may propose possible interventions.

Course Title	Philosophy of Mathematics and Mathematics Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	

Description	This course engages pre-service teachers in philosophical inquiry to understand the nature of mathematics using both a historical and epistemological lens, examine the processes of mathematics education, and strengthen logical thinking and mathematical knowledge. Pre-service teachers identify different schools of thought in mathematics and mathematics education, analyze how these philosophies position teachers and learners, and situate their own identities and beliefs within the Philippine context. They study how philosophical perspectives shape aims, content, pedagogy, assessment, and inclusion, and they critique the roles mathematics plays in human life and society. Through guided readings, case analyses, and reflective dialogues, pre-service teachers connect philosophies to classroom practice by interrogating lesson goals, discourse norms, and power relations in mathematics learning. They analyze local curriculum materials and classroom narratives to see how beliefs about mathematics influence what counts as worthwhile knowledge and how learners participate. By the end of the course, pre-service teachers articulate informed, context-sensitive positions on mathematics and mathematics education and apply these to design and defend coherent teaching decisions that promote equitable participation, meaningful understanding, and ethical responsibility for diverse learners.
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Course Title	Principles and Strategies in Teaching Mathematics
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Algebraic Thinking and Reasoning Geometric Thinking and Reasoning
Description	This course explores the nature of mathematics and the learning theories, principles, and strategies used in teaching mathematics in both face-to-face and online modalities. Pre-service teachers will learn to plan well-designed lessons that demonstrate their understanding of the learning theories, mathematics content, 21st-century skills, classroom management principles, and learner-centered strategies appropriate for the Grade level. They are expected to carry out the plans effectively and efficiently using appropriate instructional materials and technological tools. At the end of the course, the pre-service teachers must demonstrate competence and readiness to teach mathematics in basic education.

Course Title	Calculus I
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Precalculus
Description	This course introduces the pre-service teachers to the basic concepts of calculus. It begins with the core idea of the limit, then uses this to build the concept of the derivative and the integral. Some of the limit laws, differentiation rules, and integral formulas will be proven to provide exposure to and training in mathematical rigor. Derivatives will be applied in measuring rates, graphing functions, and optimization problems, while the integral will be applied in calculating areas of plane regions. Pre-service teachers are expected to perform calculations as well as apply the differentiation and integration process to problems in mathematics, the natural sciences, business and economics, and the social sciences. Technology (e.g., spreadsheets, CAS, graphing tools) will be utilized for exploration and problem solving. Pre-service teachers will also reflect on their learning experiences in the course and in the past and propose strategies that can mitigate possible learning difficulties of their future learners in mathematics or the sciences, like physics, chemistry and biology.

Course Title	Linear Algebra
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Algebraic Thinking and Reasoning
Description	This course enables pre-service teachers to learn the concepts of vector spaces, matrices, linear transformations, systems of linear equations, and to apply these concepts in constructing and analyzing mathematical models of real-world phenomena. The course extends to determinants, eigenvalues, eigenvectors, and linear programming, where pre-service teachers formulate representations of optimization, stability, and resource allocation problems using appropriate linear algebraic structures. In addition to computational proficiency, the course emphasizes mathematical reasoning and proof, including verification of vector space axioms, justification of properties of matrix operations and determinants, and analysis of the structural relationships underlying linear transformations. With its dual focus on theory and application, the course connects abstract concepts to optimization, resource allocation, and socio-economic modeling, demonstrating the relevance of Linear Algebra beyond the classroom. The course meaningfully integrates TPACK principles, using digital tools and software as pedagogical supports to deepen computation, visualization, and conceptual understanding. Through this integration, pre-service teachers experience how technology can illuminate mathematical structures, bridge abstract concepts with real-world applications, and reveal the broader role of mathematics in advancing sustainability, equity, and social justice. Throughout the course, pre-service teachers engage in problem sets, application-based projects, and reflective tasks that strengthen abstract-symbolic thinking and foster metacognitive awareness of their learning processes. By the end of the course, pre-service teachers will be able to perceive Linear Algebra not only as a mathematical discipline but also as a foundation for innovative teaching and nation-building through reflective, technology-supported, and socially responsive practice.

Course Title	Probability and Statistics I
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Algebraic Thinking and Reasoning Discrete Mathematics
Description	This course introduces pre-service teachers to the foundational ideas of probability and statistics, focusing on descriptive statistical tools, data collection, presentation and interpretation, reliability and validity testing, and the basic probability concepts needed for quantitative reasoning. Pre-service teachers learn how to collect, organize, summarize, and present data using measures of central tendency, variability, skewness, and kurtosis, while developing the ability to interpret patterns and communicate statistical insights clearly. The course also introduces sample spaces, events, basic probability rules, and counting techniques, enabling pre-service teachers to analyze simple random phenomena and reason about uncertainty. Laboratory activities may provide hands-on experience in collecting data, as well as evaluating the validity and computing the reliability coefficient of the research instrument. Grounded in technological pedagogical content knowledge (TPACK) principles, the course integrates technology tools for data organization, visualization, data presentation, and basic probability simulations. By the end of the course, pre-service teachers demonstrate foundational competency in statistics and probability, ethical handling of data, and the ability to interpret descriptive information meaningfully for educational, social, and community-based

	contexts.
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Course Title	Problem Posing, Problem Solving and Mathematical Investigation
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course immerses pre-service teachers in the core creative and rigorous practices of mathematics—problem posing, problem solving and investigation through a sustained workshop model centered on inquiry, collaboration, and hands-on exploration. Participants learn to design inclusive learning environments where technology acts as a cognitive partner alongside rich discourse and manipulatives. They curate tasks that balance conceptual understanding, strategic competence, and adaptive reasoning for diverse learners, integrating emerging digital tools to dynamically represent ideas, test conjectures, and provide actionable feedback. Through guided investigations, pre-service teachers develop resilience and metacognition as they iterate on problem-posing prompts, solve non-routine tasks, and craft explanations that foreground mathematical structure and generalization. Throughout the course, they critique tool selection for accessibility and alignment with curriculum goals, connecting inquiry routines to assessment for learning and the development of mathematical language and agency. The capstone experience involves designing and facilitating technology-enhanced, inquiry-based lessons that foster mathematical proficiency and creative thinking, thereby cultivating a reflective professional identity committed to equitable participation and deep understanding in school mathematics.

Course Title	Instrumentation and Technology for Teaching and Learning in Mathematics
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Principles and Strategies in Teaching Mathematics
Description	This course equips pre-service teachers to become expert designers and critical curators of mathematics learning resources, emphasizing a hands-on, studio-based approach to creating both physical and digital materials - from manipulatives to dynamic software like GeoGebra, Desmos, and applications or web-based simulations - that serve as cognitive partners in the classroom. Pre-service teachers develop their Technological Pedagogical Content Knowledge (TPACK) by integrating a spectrum of tools, including data analysis platforms, interactive assessment apps, and collaborative whiteboards, to foster active exploration, conceptual depth, and problem-solving. Grounded in principles of Universal Design for Learning (UDL), the curriculum guides pre-service teachers in designing accessible, curriculum-aligned resources and applying criteria of clarity, usability, and mathematical rigor to evaluate and iteratively refine their work. The course culminates in a professional portfolio of ethically adapted, classroom-ready Open Educational Resources (OER), empowering pre-service teachers to create inclusive learning environments where mathematics is engaging, tangible, and deeply understood by all learners.

Course Title	Mathematics Literacy
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Algebraic Thinking and Reasoning Geometric Thinking and Reasoning Discrete Mathematics

Description	This course equips pre-service teachers to cultivate robust mathematical literacy in learners, developing citizens who can confidently formulate, employ, and interpret mathematics across diverse contexts. The curriculum approaches mathematics as a dynamic language for decoding, describing, and rigorously reasoning about complex worldly systems. Pre-service teachers develop the skill to expertly guide learners in "reading" the mathematical models embedded within everyday algorithms, media reports, and public policy, while also "writing" their own models to actively investigate authentic phenomena. This process critically examines the underlying assumptions and varied interpretations that shape all mathematical arguments. The course progresses systematically through essential literacy domains, beginning with foundational modeling techniques that include proportional reasoning, dynamic systems, and spatial visualization. Pre-service mathematics teachers develop deep expertise in the strategic implementation of mathematical tools and the critical interpretation of outcomes, with a particular emphasis on statistical evaluation and probabilistic reasoning. These core competencies are then applied to analyze pressing contemporary contexts, such as algorithmic bias, financial mathematics, and automated decision-making processes that eventually help learners navigate the quantitative dimensions of modern society effectively. Building on the ESD framework, pre-service teachers design and sequence classroom-ready modeling tasks that develop both mathematical literacy and sustainability thinking. The course focuses on building classrooms where structured practice in applying and interpreting mathematics develops learners' evidence-based reasoning. This approach prepares pre-service teachers to instill a functional mathematical literacy, empowering learners as critical thinkers and engaged citizens in all aspects of life.
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Course Title	Calculus II
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Calculus I
Description	This course proceeds from the introduction to integral calculus covered in calculus I by exploring the different techniques of integration. The application of the integral in calculating areas is revisited then deepened by applying the integral in solving separable differential equations and calculating areas of regions in polar coordinates. Sequences and series of numbers and power series extend the scope of the sequences and series from mostly finite in pre-calculus to the infinite. The concepts of the limit, derivative and integral are then extended to functions of more than one variable. Partial derivatives are applied in optimizing functions of two variables, and double integrals are applied in calculating volumes of solids in the three-dimensional Euclidean space. Continuous probability distributions will be reviewed as an application of integrals.

Course Title	Probability and Statistics II
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Probability and Statistics I Calculus I
Description	This course builds on Probability and Statistics I by developing pre-service teachers' understanding of inferential statistical methods, random variables, probability distributions, and parametric and non-parametric techniques used in data analysis and decision-making. The course begins with the study of discrete and continuous random variables, expectations, and commonly used probability distributions, providing theoretical foundations for inference. Pre-service teachers learn inferential procedures including sampling distributions, confidence intervals, hypothesis testing, correlation, regression, and the use of statistical models to draw conclusions from sample data. The course also covers non-parametric methods suitable for small samples or non-normally distributed data. Through laboratory experiences, pre-service teachers apply technological tools to compute statistics, run simulations, visualize probabilistic behavior, and perform inferential and non-parametric analyses. The course underscores the importance of ethical decision-making, appropriate analyses for quantitative and qualitative data, clear interpretation of statistical results, and the use of statistical reasoning to examine and respond to educational, social, and sustainability concerns. By the end of the course, pre-service teachers demonstrate proficiency in applying inferential methods, modelling random phenomena, and using statistical evidence responsibly in problem-solving, research, and instructional contexts.

Course Title	Multidimensional Assessment in Mathematics
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Learner Assessment [Prof Ed]
Description	This course equips pre-service teachers to design, implement, and evaluate multidimensional assessments in mathematics, grounded in the five interdependent strands of mathematical proficiency (conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and productive disposition) to move beyond traditional testing toward a holistic view of learning. Pre-service teachers construct a range of assessment tools that capture the full spectrum of proficiency, apply formative assessment to diagnose learners' misconceptions and guide ongoing instruction, and use summative assessment to evaluate cumulative understanding with validity and fairness. They benchmark classroom assessments against international frameworks such as PISA to situate performance within global and real-world contexts, and they align interpretations with curriculum standards and instructional goals. The course emphasizes the effective integration of digital and AI-powered tools, including dynamic geometry software and adaptive platforms, to enhance task design, delivery, feedback, and data use. By the end of the course, pre-service teachers analyze assessment data to inform decisions, create learner-centered tasks that foster reasoning and agency, synthesize a professional portfolio, and use assessment as a dynamic, ethical tool that supports equitable and meaningful mathematics learning for diverse learners.

Course Title	Sociocultural Data Analytics in Mathematics
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Algebraic Thinking and Reasoning Geometric Thinking and Reasoning Discrete Mathematics Number Theory Precalculus Trigonometry Calculus I Probability and Statistics I
Description	This course develops pre-service teachers' capacity to analyze and interpret data drawn from social and cultural realities using a creative range of mathematical and statistical methods, and nurtures a sense of mission to connect mathematics to the real world in ways that improve the lives of Filipinos and humanity. Pre-service teachers examine peace and social order, ethnomathematics, social justice and equity, and governance to expand mathematical horizons, build agency and critical citizenship, and strengthen mathematical identities. Part one presents lessons that foreground real-life problems and demonstrate how measures, models, and representations from mathematics and statistics illuminate patterns, surface misconceptions, and inform decisions for diverse learners. Part two engages pre-service teachers in collaborative tasks and project-making that generate evidence-based proposals addressing challenges faced by ethnic communities, victims of injustice, and contexts shaped by weak policies and structures. Throughout, the course honors translanguaging practices to sustain rigorous yet inclusive discourse without diminishing mathematical proficiency. By the end, pre-service teachers design, communicate, and justify analyses and solutions that align mathematical reasoning with ethical responsibility and contribute to equitable outcomes in school and society.

Course Title	Research in Mathematics Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Probability and Statistics I Curriculum, Contexts, Trends, and Issues in Mathematics Education
Description	This course equips pre-service mathematics teachers with the knowledge and skills to conduct research. It emphasizes the systematic study of teaching and learning problems, the design and implementation of interventions, and the collection and analysis of data to inform practice. The course also highlights ethical considerations, reflective practice, and the role of teacher-researchers in improving mathematics instruction. At the end of the course, pre-service teachers are expected to produce and present a research proposal and report that addresses relevant issues in mathematics education.

B.4 Bachelor of Education Major in GENERAL SCIENCE

Course Title	General Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	This course provides an overview of the fundamental principles and concepts in the biological sciences. It focuses on the study of the structure and function of living organisms, biological diversity, heredity, evolution, and the interactions of organisms with their environment. Emphasis is placed on developing conceptual understanding, scientific inquiry, and critical thinking skills. Designed for pre-service teachers, the course aims to build content competence and scientific literacy essential for effective science teaching. Through lectures and laboratory activities, students will integrate theoretical knowledge with practical experience, fostering appreciation of life processes and their relevance to real-world issues. The course highlights the applicability of biology in promoting environmental awareness, health, and sustainable living.

Course Title	General and Inorganic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	General and Inorganic Chemistry serves as a foundational course that introduces the fundamental principles of chemistry, with a focus on inorganic compounds and their behaviors. It explores the structure of matter, chemical reactions, and the properties of elements and compounds. The course targets equipping pre-service teachers with a solid understanding of chemical concepts and their applications in inorganic systems. The course progresses from basic atomic concepts to complex inorganic systems, integrating theory with practical examples. Key topics include atomic structure and periodicity, chemical bonding (ionic, covalent, metallic), states of matter and phase changes, stoichiometry and chemical calculations, thermodynamics and energetics, chemical kinetics and equilibrium, acids and bases, electrochemistry, and coordination chemistry of transition metals. The instructor utilizes a mix of interactive approaches to enhance comprehension and skills development. These methods include weekly lectures with demonstrations and problem-solving sessions, hands-on laboratory experiments focusing on inorganic syntheses and analyses, group discussions and tutorials for conceptual reinforcement, and digital resources like simulations and online modules for visualizing molecular structures. The course employs varied evaluations featuring problem-solving and theoretical questions, regular quizzes and homework assignments on calculations and concepts, laboratory, and a final project or presentation on an inorganic chemistry topic.

Course Title	General Physics (Mechanics and Fluids)
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	(or corequisite) Precalculus
Description	This course is designed to build a strong foundation in mechanics and fluids. It deals with concepts and principles underlying the motion of physical objects and includes the study of fluids at rest and in motion. It covers the ideas of length, time, mass, force, torque, energy, and momentum, as applied to translational and rotational motion. It also considers both aerodynamics and

	hydrodynamics, and involves principles relating to speed, pressure, and forces. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasizing both conceptual understanding and quantitative analysis, the course develops skills in scientific investigation, critical thinking, and problem-solving, while highlighting the role of physics in technology, society, and STEM-related fields. A solid foundation in Mechanics and Fluids facilitates further studies in other areas of physics.
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Course Title	Precalculus
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares the pre-service teachers for the study of calculus. It begins with analytic geometry to equip pre-service teachers with tools for graphing equations. The focus of the course is the study of functions –the definition of functions, operations on functions, the different types of functions (polynomial, rational, exponential, logarithmic, trigonometric), and their applications. After a short review of trigonometric functions, polar coordinates, and graphs of polar curves are explored. Technological tools like spreadsheets, computer algebra systems (CAS), and graphing applications will be used for exploration and modeling tasks. The course ends with a discussion of sequences and series. Attention is given to graphing functions with or without the aid of technology and applying functions to model real life situations. The pre-service teachers will also draw from their experiences in the course and in high school to analyze difficulties and misconceptions that might be encountered by their future learners in order that they may propose possible interventions.

Course Title	Earth Science
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an overview of geology, meteorology, and oceanography. The discussion begins with the formation of the Earth, its composition and structure. Topics such as minerals, rocks, groundwater, geologic structures, geologic time, and weathering, soil, and mass wasting will also be introduced. Emphasis is placed on the interrelationships and interactions between and among Earth's spheres, highlighting the interconnected forces that drive earthquakes, volcanic eruptions, mountain building, landslides, ocean circulations, weather patterns, and climate change. Interactive simulations and videos will be used to make discussions engaging. Assessments include written examinations, collaborative projects, and conceptual essays.

Course Title	Organic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Organic Chemistry serves as a foundational course that explores the chemistry of carbon-containing compounds, which form the basis of life and many synthetic materials. It aims to equip them with a deep understanding of the structure, reactivity, and synthesis of organic molecules. By the end of the course, pre-service teachers demonstrate the ability to predict reaction outcomes, design simple syntheses, and apply organic chemistry concepts to real-world problems in fields such as pharmaceuticals.

	materials science, and environmental science. The course presents key topics in organic chemistry, progressing from basic structures to advanced reactions and applications. Major units include Introduction to Organic Compounds, Stereochemistry, Reaction Mechanisms, Aromatic Chemistry, and Carbonyl Compounds. The course employs interactive and hands-on approaches such as lectures, laboratory sessions, tutorials and discussions, online resources, and guest lectures to facilitate learning. It evaluates pre-service teachers' performance through a combination of formative and summative assessments to ensure comprehensive mastery of the learning competencies. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols.
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Course Title	Systematics and Evolution
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course provides an in-depth study of the diversity and evolutionary relationships of living organisms through the principles of classification, description, nomenclature, and evolution. It focuses on understanding how organisms are identified, organized, and related based on morphological, molecular, and evolutionary evidence. Students will develop analytical and critical thinking skills as they explore methods of reconstructing phylogenetic relationships and interpreting evolutionary patterns. Designed for pre-service teachers, the course aims to build scientific competence and deepen understanding of biological diversity and evolution through lectures, laboratory work, and hands-on experiences with specimens and data analysis. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Learning occurs through inquiry-based and collaborative activities that integrate reading, writing, speaking, and reflection. The course emphasizes the relevance of Systematics and Evolution in scientific research, biodiversity conservation, and effective science teaching, preparing students to apply these concepts in both educational and real-world conte

Course Title	Thermodynamics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course develops content-intensive knowledge on concepts and principles governing energy, heat, and work, and their transformations in physical systems. It covers temperature, temperature scales, internal energy, thermal energy, heat, thermal properties of matter, thermodynamic processes, and the laws of thermodynamics, as well as the behavior of pure substances and ideal gases. Through a combination of theoretical discussions, investigations, and practical problem-solving, the course examines processes in closed and open systems, cycles such as Carnot and Rankine, and real-world applications in engineering, physics, and environmental science. Emphasis is placed on developing analytical skills to model and predict system behavior, interpret thermodynamic data, and apply concepts to energy efficiency and sustainability challenges. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science

	Teachers by equipping them with knowledge and skills, and by enhancing their learning experiences (through reading, writing, speaking, and listening) for mastering thermodynamics concepts.
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Course Title	Astronomy
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces the fundamental concepts of astronomy. The discussion begins with the historical evolution of astronomical thought, an assessment of the state of astronomy in the Philippines, and the formation of the universe and the solar system. Emphasis is placed on the members of the solar system, particularly the Sun, Earth, its Moon and other planets, dwarf planets, and planetary debris. Stars and galaxies, seasons, tides, eclipses, and space exploration will also be tackled. Updated websites, simulations, high resolution images, scientific papers and videos will be used to make the lectures effective, engaging and interactive. Assessments include written examinations, collaborative projects, and conceptual essays.

Course Title	Biochemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Biochemistry serves as an interdisciplinary course that examines the chemical processes relating to living organisms. It bridges chemistry and biology, focusing on the molecular mechanisms that underpin life. The main objective of this course involves providing pre-service teachers with a comprehensive understanding of the molecular basis of biological processes. Upon completion, pre-service teachers can analyze biochemical pathways, interpret experimental data, and apply biochemical principles to solve problems in areas such as medicine, biotechnology, and nutrition. The course builds from foundational concepts to advanced applications, integrating theoretical and practical aspects. Key topics include biomolecules, metabolism, protein structure and function, nucleic acids and gene expression, signal transduction and cellular communication, and biochemical techniques. The course emphasizes integrating concepts with real-world examples from health, agriculture, and environmental science. The instructor employs a variety of engaging and interactive methods to promote deep learning and practical skills, such as lectures, laboratory practicals, seminars and group work, digital tools, and invited experts. The course features diverse assessments to evaluate both theoretical knowledge and practical abilities, with ongoing feedback, such as exams, quizzes and assignments, laboratory evaluations, projects or presentations, and class participation. The laboratory component provides hands-on, inquiry-based opportunities for learners to apply scientific concepts and process skills, and master safety protocols.

Course Title	Electricity and Magnetism
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course cultivates the content competence of pre-service teachers in electricity, magnetism, and electromagnetism. It includes topics on electrostatics and magnetism, electric and magnetic fields in matter, electrodynamics, and electromagnetic waves. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In

	addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning electromagnetism allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.
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Course Title	Cell and Molecular Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course explores the structure and function of cells, their organelles, and the molecular processes that sustain life. It focuses on the roles of biomolecules such as DNA, RNA, proteins, and lipids in cellular activities, including genetic regulation and energy transformation. Students will also learn basic molecular techniques such as DNA and protein analysis, genetic engineering, and applications of biotechnology. The course aims to develop scientific understanding, laboratory skills, and critical thinking among pre-service teachers. Learning takes place through lectures, laboratory experiments, and inquiry-based activities that connect theory with practice. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasis is placed on applying molecular and cellular concepts to real-world contexts, particularly in health, genetics, and biotechnology. This course prepares students to effectively teach and apply cell and molecular biology concepts in secondary education and everyday life.

Course Title	Waves and Optics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course cultivates the content competence of pre-service teachers in waves and optics. It deals with the production and propagation of waves, in addition to wave characteristics, types, and properties. The generation, control, transmission, reception, and effects of sound waves (including vibration, ultrasound, and infrasound) in gases, liquids, and solids are also considered. Furthermore, the nature and duality of light are dealt with in physical and geometric optics applications. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning waves and optics allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.

Course Title	Biodiversity and Ecology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	Biodiversity and Ecology explores the complex interactions between living organisms and their environment. This course focuses on understanding biodiversity, ecological principles, human intervention, and conservation strategies to develop scientific knowledge and skills in critical thinking and problem-solving. This course is essential for science majors, providing a foundation for understanding ecosystem balance and environmental sustainability. Through lectures, discussions,

	hands-on activities, and learner-centered pedagogy, learners will engage with real-world scenarios, developing the ability to address environmental challenges. Assignments may include case studies, research projects, laboratory experimentation, and field observations. Materials include textbooks, online resources, and local ecosystem explorations. Assessments comprise quizzes, exams, and project presentations. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills and master safety protocols. By taking this course, pre-service teachers will gain a deeper understanding of ecological systems and develop skills to promote environmental stewardship, enhancing their teaching and scientific inquiry abilities.
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Course Title	Foundations of Science Teaching for Engaged Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory education courses
Description	This foundational methods course, which equips pre-service teachers with the innovative, context-driven approaches necessary to make science accessible, relevant, and engaging for diverse basic education learners, thereby cultivating the content and skill competence required of a Quality Filipino Science Teacher, focuses its curriculum on developing professional pedagogical content knowledge through mastering the design of inquiry-based lessons, developing hands-on investigations, and integrating digital tools and other emerging technologies to enhance conceptual understanding and scientific literacy. The course introduces the constructivist view of the nature of science and emphasizes seven cross-cutting concepts: patterns; cause and effect; scale, proportion, and quantity; systems; matter and energy flow; structure and function; and stability and change. It promotes developmentally appropriate pedagogy, community connections, and the crafting of inclusive and culturally responsive assessments via interactive seminars, teaching labs, and professional workshops that reinforce disciplinary practices. The course culminates in performance tasks, including the construction of progressive unit plans, the implementation of microteaching techniques, and the development of comprehensive technology-integrated engagement portfolios and community-connected projects, ultimately establishing foundational science teaching competency.

Course Title	Research in Science Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Education, Statistics in Education
Description	This course equips pre-service science teachers with the knowledge, skills, and ethical grounding to conduct rigorous educational and scientific research. It develops their ability to design, implement, and communicate both classroom-based action research and pure or investigatory science research that addresses pressing educational and scientific challenges in Philippine contexts. Pre-service teachers explore various research paradigms, methodologies, and analytical tools suited for both educational and experimental studies. Course content includes: (1) foundations and ethics of educational and scientific research; (2) research problem formulation and literature synthesis; (3) quantitative, qualitative, and mixed-methods designs; (4) experimental and investigatory research in the sciences; (5) data collection and analysis using digital tools; (6) research proposal and dissemination strategies; and (7) translating research findings into practice, policy, and innovation. Teaching methods integrate interactive lectures, proposal workshops, guided data analysis,

	peer review sessions, and research mentoring. Assessments include a mini-investigatory research project, an action research report, a methodological critique, and a research dissemination presentation. By the end of the course, pre-service teachers demonstrate competence in conducting and communicating research that strengthens scientific inquiry, informs pedagogical improvement, and contributes to evidence-based educational reform. This course cultivates reflective and research-driven Quality Filipino Science Teachers ready to advance education and innovation.
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Course Title	Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching methods course
Description	This course empowers senior-level pre-service teachers to extend science learning beyond classrooms into museums, community gardens, local industries, and digital public spaces. The course aims to: 1) develop community-responsive learning designs that align disciplinary science with local contexts; 2) demonstrate inclusive facilitation and communication skills for diverse publics; 3) integrate informal education theories and site-based pedagogy into lesson and program planning; 4) evaluate informal learning outcomes with formative and authentic assessments. Contents on this course include: a) foundations of informal and community pedagogy and how it differs from the Science, Technology, Society (STS) general education course by focusing on applied pedagogies and partnership design; b) stakeholder engagement and partnership negotiation with LGUs, NGOs, schools, and industry; c) designing site-based activities, exhibits, and community workshops with attention to safety, accessibility, and cultural relevance; d) technology-enhanced outreach (AR/VR, mobile sensors) and digital mediation; e) assessment strategies for informal settings and reflective practice. Teaching methods include community-based projects, guided fieldwork, stakeholder co-design workshops, microteaching in partner sites, and seminar readings. Assessment methods include a community partnership proposal, an implemented informal learning activity, a technology-enhanced outreach simulation, a reflective capstone portfolio, and peer/community feedback. The course will help pre-service teachers develop professional competencies, ethical community engagement, and assessment literacy that support sustainable partnerships and measurable learner impact across diverse contexts.

Course Title	Teaching Science Research and Design Thinking in Basic Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of science education
Description	This course empowers pre-service science educators to facilitate advanced scientific inquiry by applying the human-centered, iterative Design Thinking framework to Project-Based Learning (PBL) within basic education, addressing community challenges and promoting national development. Content emphasizes mastering the articulation of Design Thinking principles and the practical stages of the design process—from Discovering and Defining a local problem to Ideating, Prototyping, and Testing contextual solutions—as a robust structure for conducting Science Investigatory Projects (SIP). This process transforms linear scientific research into actionable, applied science. Learning occurs through hands-on laboratory experiences, collaborative

	design workshops, and instruction that merges SIP competencies with real-world problem-solving. Assessment relies on applied skills through developing comprehensive, standards-aligned PBL unit plans, defending a formal SIP proposal, and demonstrating competence in facilitating peer-teaching demonstrations and the final design thinking portfolio, shaping educators into innovative facilitators of research.
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Course Title	Education for Sustainable Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory science and education courses
Description	This course enables pre-service science teachers to integrate the principles of Education for Sustainable Development (ESD) into their teaching practice, cultivating learners who are environmentally conscious, socially responsible, and future-oriented. It equips them to design learning experiences that address global and local sustainability issues such as climate change, resource management, biodiversity conservation, and sustainable consumption and pollution. Course content includes: (1) foundations and frameworks of ESD; (2) sustainability concepts and global-local challenges; (3) integrating ESD into science curricula; (4) the ESD Toolbox for instructional strategies, assessment, and community engagement; (5) the ESD Roadmap for school and community implementation; (6) technology for sustainability (e.g., simulations, digital mapping, AR/VR applications); and (7) monitoring and evaluating ESD initiatives. Teaching methods emphasize inquiry-based and project-based learning, as well as community immersion. Learners collaborate in workshops, sustainability audits, and eco-innovation challenges. Assessments include a sustainability-focused lesson plan, community-based project proposal, ESD implementation roadmap, and a reflective portfolio linking practice to policy and advocacy. By the end of the course, pre-service teachers demonstrate their capacity to design transformative, context-sensitive, and technology-enhanced ESD programs. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers committed to sustainable futures.

Course Title	Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovation for Future Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, foundational courses (e.g. principles of teaching, educational technology)
Description	This course empowers pre-service science teachers to design transformative, technology-enhanced learning environments that bridge classroom, community, and industry. It develops their competence in integrating emerging educational technologies, such as PhET simulations, offline GenDiTool, game-based learning (GBL), and augmented/virtual reality (AR/VR), to create meaningful, context-sensitive science instruction. Learners explore ethical and responsible uses of Artificial Intelligence (AI), data literacy, and digital citizenship within science education. Course content includes: (1) foundations of technology-enhanced pedagogy; (2) inquiry and problem-based science learning; (3) designing tech-integrated lessons using context-appropriate tools; (4) community and industry-linked learning experiences; (5) ethical AI and data use in education; and (6) assessing technology-driven learning outcomes. Teaching methods emphasize active learning, collaborative design workshops, reflective practice, and guided micro-training sessions. Assessment tasks include digital learning

	prototypes, community partnership proposals, and reflective journals on technology ethics and integration. The culminating requirement is a technology-integrated lesson prototype or micro-training plan demonstrating the learner's ability to design, implement, and evaluate transformative, tech-supported science instruction. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with innovative, ethical, and context-responsive pedagogical skills (through reading, writing, and speaking) for future-ready classrooms.
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Course Title	Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching method course
Description	This course enables pre-service science teachers to critically examine and teach pressing socio-scientific issues (SSIs) through the lenses of literacy and numeracy. It develops their ability to engage learners in evidence-based reasoning, data interpretation, and ethical decision-making on current science-related dilemmas in the Philippine context, such as climate change, vaccination, waste management, and energy debates. Course content includes: (1) foundations of literacy and numeracy in science education; (2) frameworks for analyzing socio-scientific issues; (3) evaluating media, data, and policy on key Philippine SSIs; (4) designing literacy- and numeracy-integrated SSI lessons; (5) facilitating classroom discourse and argumentation; and (6) developing community- and policy-oriented responses. Teaching methods emphasize dialogic instruction, project-based learning, critical media analysis, and collaborative debates. Assessments include a media and data analysis portfolio, SSI lesson design project, community-informed policy reflection paper, and a capstone SSI unit plan integrating literacy and numeracy strategies. By the end of the course, pre-service teachers demonstrate their capacity to design and implement inclusive, evidence-driven, and context-sensitive SSI learning experiences. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers who guide learners to think critically, reason ethically, and act responsibly toward socio-scientific challenges.

B.5 Bachelor of Education Major in BIOLOGICAL SCIENCE

Course Title	General Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	This course provides an overview of the fundamental principles and concepts in the biological sciences. It focuses on the study of the structure and function of living organisms, biological diversity, heredity, evolution, and the interactions of organisms with their environment. Emphasis is placed on developing conceptual understanding, scientific inquiry, and critical thinking skills. Designed for pre-service teachers, the course aims to build content competence and scientific literacy essential for effective science teaching. Through lectures and laboratory activities, students will integrate theoretical knowledge with practical experience, fostering appreciation of life processes and their relevance to real-world issues. The course highlights the applicability of biology in promoting environmental awareness.

	health, and sustainable living.
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Course Title	General and Inorganic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	General and Inorganic Chemistry serves as a foundational course that introduces the fundamental principles of chemistry, with a focus on inorganic compounds and their behaviors. It explores the structure of matter, chemical reactions, and the properties of elements and compounds. The course targets equipping pre-service teachers with a solid understanding of chemical concepts and their applications in inorganic systems. The course progresses from basic atomic concepts to complex inorganic systems, integrating theory with practical examples. Key topics include atomic structure and periodicity, chemical bonding (ionic, covalent, metallic), states of matter and phase changes, stoichiometry and chemical calculations, thermodynamics and energetics, chemical kinetics and equilibrium, acids and bases, electrochemistry, and coordination chemistry of transition metals. The instructor utilizes a mix of interactive approaches to enhance comprehension and skills development. These methods include weekly lectures with demonstrations and problem-solving sessions, hands-on laboratory experiments focusing on inorganic syntheses and analyses, group discussions and tutorials for conceptual reinforcement, and digital resources like simulations and online modules for visualizing molecular structures. The course employs varied evaluations featuring problem-solving and theoretical questions, regular quizzes and homework assignments on calculations and concepts, laboratory, and a final project or presentation on an inorganic chemistry topic.

Course Title	General Physics (Mechanics and Fluids)
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	(or corequisite) Precalculus
Description	This course is designed to build a strong foundation in mechanics and fluids. It deals with concepts and principles underlying the motion of physical objects and includes the study of fluids at rest and in motion. It covers the ideas of length, time, mass, force, torque, energy, and momentum, as applied to translational and rotational motion. It also considers both aerodynamics and hydrodynamics, and involves principles relating to speed, pressure, and forces. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasizing both conceptual understanding and quantitative analysis, the course develops skills in scientific investigation, critical thinking, and problem-solving, while highlighting the role of physics in technology, society, and STEM-related fields. A solid foundation in Mechanics and Fluids facilitates further studies in other areas of physics.

Course Title	Precalculus
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares the pre-service teachers for the study of calculus. It begins with analytic geometry to equip pre-service teachers with tools for graphing equations. The focus of the course is the study of functions –the definition of functions, operations on functions, the different types of functions (polynomial, rational, exponential, logarithmic, trigonometric), and their applications.

	After a short review of trigonometric functions, polar coordinates, and graphs of polar curves are explored. Technological tools like spreadsheets, computer algebra systems (CAS), and graphing applications will be used for exploration and modeling tasks. The course ends with a discussion of sequences and series. Attention is given to graphing functions with or without the aid of technology and applying functions to model real life situations. The pre-service teachers will also draw from their experiences in the course and in high school to analyze difficulties and misconceptions that might be encountered by their future learners in order that they may propose possible interventions.
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Course Title	Earth Science
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an overview of geology, meteorology, and oceanography. The discussion begins with the formation of the Earth, its composition and structure. Topics such as minerals, rocks, groundwater, geologic structures, geologic time, and weathering, soil, and mass wasting will also be introduced. Emphasis is placed on the interrelationships and interactions between and among Earth's spheres, highlighting the interconnected forces that drive earthquakes, volcanic eruptions, mountain building, landslides, ocean circulations, weather patterns, and climate change. Interactive simulations and videos will be used to make discussions engaging. Assessments include written examinations, collaborative projects, and conceptual essays.

Course Title	Organic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Organic Chemistry serves as a foundational course that explores the chemistry of carbon-containing compounds, which form the basis of life and many synthetic materials. It aims to equip them with a deep understanding of the structure, reactivity, and synthesis of organic molecules. By the end of the course, pre-service teachers demonstrate the ability to predict reaction outcomes, design simple syntheses, and apply organic chemistry concepts to real-world problems in fields such as pharmaceuticals, materials science, and environmental science. The course presents key topics in organic chemistry, progressing from basic structures to advanced reactions and applications. Major units include Introduction to Organic Compounds, Stereochemistry, Reaction Mechanisms, Aromatic Chemistry, and Carbonyl Compounds. The course employs interactive and hands-on approaches such as lectures, laboratory sessions, tutorials and discussions, online resources, and guest lectures to facilitate learning. It evaluates pre-service teachers' performance through a combination of formative and summative assessments to ensure comprehensive mastery of the learning competencies. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols.

Course Title	Systematics and Evolution
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course provides an in-depth study of the diversity and evolutionary relationships of living organisms through the

	principles of classification, description, nomenclature, and evolution. It focuses on understanding how organisms are identified, organized, and related based on morphological, molecular, and evolutionary evidence. Students will develop analytical and critical thinking skills as they explore methods of reconstructing phylogenetic relationships and interpreting evolutionary patterns. Designed for pre-service teachers, the course aims to build scientific competence and deepen understanding of biological diversity and evolution through lectures, laboratory work, and hands-on experiences with specimens and data analysis. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Learning occurs through inquiry-based and collaborative activities that integrate reading, writing, speaking, and reflection. The course emphasizes the relevance of Systematics and Evolution in scientific research, biodiversity conservation, and effective science teaching, preparing students to apply these concepts in both educational and real-world conte
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Course Title	Thermodynamics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course develops content-intensive knowledge on concepts and principles governing energy, heat, and work, and their transformations in physical systems. It covers temperature, temperature scales, internal energy, thermal energy, heat, thermal properties of matter, thermodynamic processes, and the laws of thermodynamics, as well as the behavior of pure substances and ideal gases. Through a combination of theoretical discussions, investigations, and practical problem-solving, the course examines processes in closed and open systems, cycles such as Carnot and Rankine, and real-world applications in engineering, physics, and environmental science. Emphasis is placed on developing analytical skills to model and predict system behavior, interpret thermodynamic data, and apply concepts to energy efficiency and sustainability challenges. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with knowledge and skills, and by enhancing their learning experiences (through reading, writing, speaking, and listening) for mastering thermodynamics concepts.

Course Title	Astronomy
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces the fundamental concepts of astronomy. The discussion begins with the historical evolution of astronomical thought, an assessment of the state of astronomy in the Philippines, and the formation of the universe and the solar system. Emphasis is placed on the members of the solar system, particularly the Sun, Earth, its Moon and other planets, dwarf planets, and planetary debris. Stars and galaxies, seasons, tides, eclipses, and space exploration will also be tackled. Updated websites, simulations, high resolution images, scientific papers and videos will be used to make the lectures effective, engaging and interactive. Assessments include written examinations, collaborative projects, and conceptual essays.

Course Title	Biochemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Biochemistry serves as an interdisciplinary course that examines the chemical processes relating to living organisms. It bridges chemistry and biology, focusing on the molecular mechanisms that underpin life. The main objective of this course involves providing pre-service teachers with a comprehensive understanding of the molecular basis of biological processes. Upon completion, pre-service teachers can analyze biochemical pathways, interpret experimental data, and apply biochemical principles to solve problems in areas such as medicine, biotechnology, and nutrition. The course builds from foundational concepts to advanced applications, integrating theoretical and practical aspects. Key topics include biomolecules, metabolism, protein structure and function, nucleic acids and gene expression, signal transduction and cellular communication, and biochemical techniques. The course emphasizes integrating concepts with real-world examples from health, agriculture, and environmental science. The instructor employs a variety of engaging and interactive methods to promote deep learning and practical skills, such as lectures, laboratory practicals, seminars and group work, digital tools, and invited experts. The course features diverse assessments to evaluate both theoretical knowledge and practical abilities, with ongoing feedback, such as exams, quizzes and assignments, laboratory evaluations, projects or presentations, and class participation. The laboratory component provides hands-on, inquiry-based opportunities for learners to apply scientific concepts and process skills, and master safety protocols.

Course Title	Electricity and Magnetism
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course cultivates the content competence of pre-service teachers in electricity, magnetism, and electromagnetism. It includes topics on electrostatics and magnetism, electric and magnetic fields in matter, electrodynamics, and electromagnetic waves. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning electromagnetism allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.

Course Title	Cell and Molecular Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course explores the structure and function of cells, their organelles, and the molecular processes that sustain life. It focuses on the roles of biomolecules such as DNA, RNA, proteins, and lipids in cellular activities, including genetic regulation and energy transformation. Students will also learn basic molecular techniques such as DNA and protein analysis, genetic engineering, and applications of biotechnology. The course aims to develop scientific understanding, laboratory skills, and critical thinking among pre-service teachers. Learning takes place through lectures, laboratory experiments, and inquiry-based activities that connect theory with practice. The laboratory component provides

	hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasis is placed on applying molecular and cellular concepts to real-world contexts, particularly in health, genetics, and biotechnology. This course prepares students to effectively teach and apply cell and molecular biology concepts in secondary education and everyday life.
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Course Title	Waves and Optics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course cultivates the content competence of pre-service teachers in waves and optics. It deals with the production and propagation of waves, in addition to wave characteristics, types, and properties. The generation, control, transmission, reception, and effects of sound waves (including vibration, ultrasound, and infrasound) in gases, liquids, and solids are also considered. Furthermore, the nature and duality of light are dealt with in physical and geometric optics applications. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning waves and optics allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.

Course Title	Biodiversity and Ecology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	Biodiversity and Ecology explores the complex interactions between living organisms and their environment. This course focuses on understanding biodiversity, ecological principles, human intervention, and conservation strategies to develop scientific knowledge and skills in critical thinking and problem-solving. This course is essential for science majors, providing a foundation for understanding ecosystem balance and environmental sustainability. Through lectures, discussions, hands-on activities, and learner-centered pedagogy, learners will engage with real-world scenarios, developing the ability to address environmental challenges. Assignments may include case studies, research projects, laboratory experimentation, and field observations. Materials include textbooks, online resources, and local ecosystem explorations. Assessments comprise quizzes, exams, and project presentations. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills and master safety protocols. By taking this course, pre-service teachers will gain a deeper understanding of ecological systems and develop skills to promote environmental stewardship, enhancing their teaching and scientific inquiry abilities.

Course Title	Microbiology and Parasitology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology Cell and Molecular Biology
Description	This course introduces the study of microorganisms and parasites, their structure, function, pathogenicity, and transmission. It covers the principles of infection, immunity, and disease control.

	highlighting their effects on human health, the environment, and industry. Students will also learn basic laboratory techniques such as microscopy, aseptic procedures, culture, and identification of microbes and parasites. The course aims to build scientific understanding and practical skills among pre-service teachers through lectures, laboratory work, and hands-on activities. Emphasis is placed on applying microbiological and parasitological knowledge to real-world issues in health and education. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. This course prepares learners to effectively teach and apply these concepts in classroom and community settings.
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Course Title	Plant Physiology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology Systematics and Evolution Biodiversity and Ecology Cell and Molecular Biology
Description	In Plant Physiology, pre-service teachers explore fundamental processes governing plant growth, development, and environmental responses. They master key concepts, including photosynthesis, respiration, water and nutrient relations, hormonal regulation, and plant growth and development, developing critical thinking and problem-solving skills. This course provides a foundational understanding of plant biology and its applications in agriculture, conservation, and environmental science. Through lectures, simulations, collaborative activities, and inquiry-based learning, pre-service teachers apply plant physiology concepts to real-world scenarios. Assessment tasks include laboratory reports, experimental designs, and case study analyses. Course resources comprise textbooks, online modules, and laboratory facilities. Evaluation methods include quizzes, examinations, and project presentations, assessing pre-service teachers' mastery of plant physiology concepts and their ability to address complex biological questions. The laboratory component offers hands-on experiences that enable students to apply scientific concepts, develop process skills, and master safety protocols. These assessments prepare pre-service teachers for careers in science education, research, and environmental science, equipping them with the knowledge and skills necessary to become effective science educators and quality Filipino Science teachers.

Course Title	Animal Anatomy and Physiology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology Cell and Molecular Biology
Description	In Animal Anatomy and Physiology, pre-service teachers explore the structure and function of animal bodies, gaining a deep understanding of physiological processes and anatomical systems. Pre-service teachers will master the principles of animal anatomy and physiology, develop critical thinking and problem-solving skills, and apply knowledge to real-world scenarios, preparing for careers in science education, research, and animal healthcare. Through lectures, discussions, simulations, and dissections, pre-service teachers engage with concepts of animal anatomy and physiology, applying these concepts to case studies and research projects. Assignments include comparative anatomy essays, physiological case studies, and laboratory reports, using textbooks, online resources, and anatomical models. Assessments comprise quizzes, exams, and project presentations, which evaluate

	learners' understanding and ability to apply knowledge to address complex biological questions and challenges, thereby preparing them for advanced studies and careers in animal science and related fields. The laboratory component allows students to apply theoretical concepts to real-world experiments, develop practical skills, and reinforce learning through hands-on experience, leading to better understanding, retention, and application of biological concepts.
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Course Title	Genetics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	Cell and Molecular Biology
Description	In Genetics, pre-service teachers delve into the intricacies of heredity, exploring how traits are transmitted across generations at molecular, cellular, and population levels. Pre-service teachers master gene structure and function, inheritance mechanisms, and the impact of genetic variation on evolution and disease, developing critical thinking and problem-solving skills. This course is essential for biological science majors, providing a foundational understanding of genetic principles and their applications in medicine, agriculture, and biotechnology. Through lectures, discussions, and laboratory activities, pre-service teachers engage with genetic concepts, applying them to case studies and research projects. Assignments include genetic problem-solving exercises, research papers, and laboratory reports. Course materials may include textbooks, online resources, and genetic software or laboratory simulations. Assessments comprise quizzes, exams, and project presentations, evaluating learners' understanding of genetic principles and their ability to apply this knowledge to address complex biological questions and challenges, preparing them for careers in science education, research, and biotechnology. The laboratory component allows the application of theoretical concepts to real-world experiments, the development of practical skills, and the reinforcement of learning through hands-on experience, leading to better understanding, retention, and application of concepts in Genetics.

Course Title	Biotechniques
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	Cell and Molecular Biology Microbiology and Parasitology Systematics and Evolution
Description	This course provides a practical introduction to essential laboratory methods used in biological research and biotechnology. It covers core techniques such as micropipetting, nucleic acid isolation, polymerase chain reaction (PCR), protein analysis, and gel electrophoresis. Emphasis is placed on understanding experimental design, data analysis, and bioethical considerations in scientific work. The course aims to develop technical competence, analytical skills, and scientific literacy among pre-service teachers. Learning occurs through lectures, laboratory exercises, and inquiry-based experiments that encourage collaboration, problem-solving, and critical thinking. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. By linking laboratory skills to applications in medicine, agriculture, and industry, the course helps students understand the real-world relevance of biotechnology and prepares them to confidently teach and be a mentor in biological sciences investigatory project thus apply these techniques in educational and research settings.

Course Title	Foundations of Science Teaching for Engaged Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory education courses
Description	This foundational methods course, which equips pre-service teachers with the innovative, context-driven approaches necessary to make science accessible, relevant, and engaging for diverse basic education learners, thereby cultivating the content and skill competence required of a Quality Filipino Science Teacher, focuses its curriculum on developing professional pedagogical content knowledge through mastering the design of inquiry-based lessons, developing hands-on investigations, and integrating digital tools and other emerging technologies to enhance conceptual understanding and scientific literacy. The course introduces the constructivist view of the nature of science and emphasizes seven cross-cutting concepts: patterns; cause and effect; scale, proportion, and quantity; systems; matter and energy flow; structure and function; and stability and change. It promotes developmentally appropriate pedagogy, community connections, and the crafting of inclusive and culturally responsive assessments via interactive seminars, teaching labs, and professional workshops that reinforce disciplinary practices. The course culminates in performance tasks, including the construction of progressive unit plans, the implementation of microteaching techniques, and the development of comprehensive technology-integrated engagement portfolios and community-connected projects, ultimately establishing foundational science teaching competency.

Course Title	Research in Science Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Education, Statistics in Education
Description	This course equips pre-service science teachers with the knowledge, skills, and ethical grounding to conduct rigorous educational and scientific research. It develops their ability to design, implement, and communicate both classroom-based action research and pure or investigatory science research that addresses pressing educational and scientific challenges in Philippine contexts. Pre-service teachers explore various research paradigms, methodologies, and analytical tools suited for both educational and experimental studies. Course content includes: (1) foundations and ethics of educational and scientific research; (2) research problem formulation and literature synthesis; (3) quantitative, qualitative, and mixed-methods designs; (4) experimental and investigatory research in the sciences; (5) data collection and analysis using digital tools; (6) research proposal and dissemination strategies; and (7) translating research findings into practice, policy, and innovation. Teaching methods integrate interactive lectures, proposal workshops, guided data analysis, peer review sessions, and research mentoring. Assessments include a mini-investigatory research project, an action research report, a methodological critique, and a research dissemination presentation. By the end of the course, pre-service teachers demonstrate competence in conducting and communicating research that strengthens scientific inquiry, informs pedagogical improvement, and contributes to evidence-based educational reform. This course cultivates reflective and research-driven Quality Filipino Science Teachers ready to advance education and innovation.

Course Title	Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies
Course Credits	3 units

Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching methods course
Description	This course empowers senior-level pre-service teachers to extend science learning beyond classrooms into museums, community gardens, local industries, and digital public spaces. The course aims to: 1) develop community-responsive learning designs that align disciplinary science with local contexts; 2) demonstrate inclusive facilitation and communication skills for diverse publics; 3) integrate informal education theories and site-based pedagogy into lesson and program planning; 4) evaluate informal learning outcomes with formative and authentic assessments. Contents on this course include: a) foundations of informal and community pedagogy and how it differs from the Science, Technology, Society (STS) general education course by focusing on applied pedagogies and partnership design; b) stakeholder engagement and partnership negotiation with LGUs, NGOs, schools, and industry; c) designing site-based activities, exhibits, and community workshops with attention to safety, accessibility, and cultural relevance; d) technology-enhanced outreach (AR/VR, mobile sensors) and digital mediation; e) assessment strategies for informal settings and reflective practice. Teaching methods include community-based projects, guided fieldwork, stakeholder co-design workshops, microteaching in partner sites, and seminar readings. Assessment methods include a community partnership proposal, an implemented informal learning activity, a technology-enhanced outreach simulation, a reflective capstone portfolio, and peer/community feedback. The course will help pre-service teachers develop professional competencies, ethical community engagement, and assessment literacy that support sustainable partnerships and measurable learner impact across diverse contexts.

Course Title	Teaching Science Research and Design Thinking in Basic Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of science education
Description	This course empowers pre-service science educators to facilitate advanced scientific inquiry by applying the human-centered, iterative Design Thinking framework to Project-Based Learning (PBL) within basic education, addressing community challenges and promoting national development. Content emphasizes mastering the articulation of Design Thinking principles and the practical stages of the design process—from Discovering and Defining a local problem to Ideating, Prototyping, and Testing contextual solutions—as a robust structure for conducting Science Investigatory Projects (SIP). This process transforms linear scientific research into actionable, applied science. Learning occurs through hands-on laboratory experiences, collaborative design workshops, and instruction that merges SIP competencies with real-world problem-solving. Assessment relies on applied skills through developing comprehensive, standards-aligned PBL unit plans, defending a formal SIP proposal, and demonstrating competence in facilitating peer-teaching demonstrations and the final design thinking portfolio, shaping educators into innovative facilitators of research.

Course Title	Education for Sustainable Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory science and education courses
Description	This course enables pre-service science teachers to integrate the principles of Education for Sustainable Development (ESD) into

	their teaching practice, cultivating learners who are environmentally conscious, socially responsible, and future-oriented. It equips them to design learning experiences that address global and local sustainability issues such as climate change, resource management, biodiversity conservation, and sustainable consumption and pollution. Course content includes: (1) foundations and frameworks of ESD; (2) sustainability concepts and global-local challenges; (3) integrating ESD into science curricula; (4) the ESD Toolbox for instructional strategies, assessment, and community engagement; (5) the ESD Roadmap for school and community implementation; (6) technology for sustainability (e.g., simulations, digital mapping, AR/VR applications); and (7) monitoring and evaluating ESD initiatives. Teaching methods emphasize inquiry-based and project-based learning, as well as community immersion. Learners collaborate in workshops, sustainability audits, and eco-innovation challenges. Assessments include a sustainability-focused lesson plan, community-based project proposal, ESD implementation roadmap, and a reflective portfolio linking practice to policy and advocacy. By the end of the course, pre-service teachers demonstrate their capacity to design transformative, context-sensitive, and technology-enhanced ESD programs. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers committed to sustainable futures.
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Course Title	Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovation for Future Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, foundational courses (e.g. principles of teaching, educational technology)
Description	This course empowers pre-service science teachers to design transformative, technology-enhanced learning environments that bridge classroom, community, and industry. It develops their competence in integrating emerging educational technologies, such as PhET simulations, offline GenDiTool, game-based learning (GBL), and augmented/virtual reality (AR/VR), to create meaningful, context-sensitive science instruction. Learners explore ethical and responsible uses of Artificial Intelligence (AI), data literacy, and digital citizenship within science education. Course content includes: (1) foundations of technology-enhanced pedagogy; (2) inquiry and problem-based science learning; (3) designing tech-integrated lessons using context-appropriate tools; (4) community and industry-linked learning experiences; (5) ethical AI and data use in education; and (6) assessing technology-driven learning outcomes. Teaching methods emphasize active learning, collaborative design workshops, reflective practice, and guided micro-training sessions. Assessment tasks include digital learning prototypes, community partnership proposals, and reflective journals on technology ethics and integration. The culminating requirement is a technology-integrated lesson prototype or micro-training plan demonstrating the learner's ability to design, implement, and evaluate transformative, tech-supported science instruction. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with innovative, ethical, and context-responsive pedagogical skills (through reading, writing, and speaking) for future-ready classrooms.

Course Title	Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach
Course Credits	3 units

Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching method course
Description	This course enables pre-service science teachers to critically examine and teach pressing socio-scientific issues (SSIs) through the lenses of literacy and numeracy. It develops their ability to engage learners in evidence-based reasoning, data interpretation, and ethical decision-making on current science-related dilemmas in the Philippine context, such as climate change, vaccination, waste management, and energy debates. Course content includes: (1) foundations of literacy and numeracy in science education; (2) frameworks for analyzing socio-scientific issues; (3) evaluating media, data, and policy on key Philippine SSIs; (4) designing literacy- and numeracy-integrated SSI lessons; (5) facilitating classroom discourse and argumentation; and (6) developing community- and policy-oriented responses. Teaching methods emphasize dialogic instruction, project-based learning, critical media analysis, and collaborative debates. Assessments include a media and data analysis portfolio, SSI lesson design project, community-informed policy reflection paper, and a capstone SSI unit plan integrating literacy and numeracy strategies. By the end of the course, pre-service teachers demonstrate their capacity to design and implement inclusive, evidence-driven, and context-sensitive SSI learning experiences. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers who guide learners to think critically, reason ethically, and act responsibly toward socio-scientific challenges.

B.6 Bachelor of Education Major in PHYSICAL SCIENCE

Course Title	General Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	This course provides an overview of the fundamental principles and concepts in the biological sciences. It focuses on the study of the structure and function of living organisms, biological diversity, heredity, evolution, and the interactions of organisms with their environment. Emphasis is placed on developing conceptual understanding, scientific inquiry, and critical thinking skills. Designed for pre-service teachers, the course aims to build content competence and scientific literacy essential for effective science teaching. Through lectures and laboratory activities, students will integrate theoretical knowledge with practical experience, fostering appreciation of life processes and their relevance to real-world issues. The course highlights the applicability of biology in promoting environmental awareness, health, and sustainable living.

Course Title	General and Inorganic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	General and Inorganic Chemistry serves as a foundational course that introduces the fundamental principles of chemistry, with a focus on inorganic compounds and their behaviors. It explores the structure of matter, chemical reactions, and the properties of elements and compounds. The course targets equipping pre-service teachers with a solid understanding of chemical concepts and their applications in inorganic systems. The course progresses from basic atomic concepts to complex inorganic systems, integrating theory with practical examples. Key topics

	include atomic structure and periodicity, chemical bonding (ionic, covalent, metallic), states of matter and phase changes, stoichiometry and chemical calculations, thermodynamics and energetics, chemical kinetics and equilibrium, acids and bases, electrochemistry, and coordination chemistry of transition metals. The instructor utilizes a mix of interactive approaches to enhance comprehension and skills development. These methods include weekly lectures with demonstrations and problem-solving sessions, hands-on laboratory experiments focusing on inorganic syntheses and analyses, group discussions and tutorials for conceptual reinforcement, and digital resources like simulations and online modules for visualizing molecular structures. The course employs varied evaluations featuring problem-solving and theoretical questions, regular quizzes and homework assignments on calculations and concepts, laboratory, and a final project or presentation on an inorganic chemistry topic.
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Course Title	General Physics (Mechanics and Fluids)
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	(or corequisite) Precalculus
Description	This course is designed to build a strong foundation in mechanics and fluids. It deals with concepts and principles underlying the motion of physical objects and includes the study of fluids at rest and in motion. It covers the ideas of length, time, mass, force, torque, energy, and momentum, as applied to translational and rotational motion. It also considers both aerodynamics and hydrodynamics, and involves principles relating to speed, pressure, and forces. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasizing both conceptual understanding and quantitative analysis, the course develops skills in scientific investigation, critical thinking, and problem-solving, while highlighting the role of physics in technology, society, and STEM-related fields. A solid foundation in Mechanics and Fluids facilitates further studies in other areas of physics.

Course Title	Precalculus
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares the pre-service teachers for the study of calculus. It begins with analytic geometry to equip pre-service teachers with tools for graphing equations. The focus of the course is the study of functions –the definition of functions, operations on functions, the different types of functions (polynomial, rational, exponential, logarithmic, trigonometric), and their applications. After a short review of trigonometric functions, polar coordinates, and graphs of polar curves are explored. Technological tools like spreadsheets, computer algebra systems (CAS), and graphing applications will be used for exploration and modeling tasks. The course ends with a discussion of sequences and series. Attention is given to graphing functions with or without the aid of technology and applying functions to model real life situations. The pre-service teachers will also draw from their experiences in the course and in high school to analyze difficulties and misconceptions that might be encountered by their future learners in order that they may propose possible interventions.

Course Title	Earth Science
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an overview of geology, meteorology, and oceanography. The discussion begins with the formation of the Earth, its composition and structure. Topics such as minerals, rocks, groundwater, geologic structures, geologic time, and weathering, soil, and mass wasting will also be introduced. Emphasis is placed on the interrelationships and interactions between and among Earth's spheres, highlighting the interconnected forces that drive earthquakes, volcanic eruptions, mountain building, landslides, ocean circulations, weather patterns, and climate change. Interactive simulations and videos will be used to make discussions engaging. Assessments include written examinations, collaborative projects, and conceptual essays.

Course Title	Organic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Organic Chemistry serves as a foundational course that explores the chemistry of carbon-containing compounds, which form the basis of life and many synthetic materials. It aims to equip them with a deep understanding of the structure, reactivity, and synthesis of organic molecules. By the end of the course, pre-service teachers demonstrate the ability to predict reaction outcomes, design simple syntheses, and apply organic chemistry concepts to real-world problems in fields such as pharmaceuticals, materials science, and environmental science. The course presents key topics in organic chemistry, progressing from basic structures to advanced reactions and applications. Major units include Introduction to Organic Compounds, Stereochemistry, Reaction Mechanisms, Aromatic Chemistry, and Carbonyl Compounds. The course employs interactive and hands-on approaches such as lectures, laboratory sessions, tutorials and discussions, online resources, and guest lectures to facilitate learning. It evaluates pre-service teachers' performance through a combination of formative and summative assessments to ensure comprehensive mastery of the learning competencies. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols.

Course Title	Systematics and Evolution
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course provides an in-depth study of the diversity and evolutionary relationships of living organisms through the principles of classification, description, nomenclature, and evolution. It focuses on understanding how organisms are identified, organized, and related based on morphological, molecular, and evolutionary evidence. Students will develop analytical and critical thinking skills as they explore methods of reconstructing phylogenetic relationships and interpreting evolutionary patterns. Designed for pre-service teachers, the course aims to build scientific competence and deepen understanding of biological

	diversity and evolution through lectures, laboratory work, and hands-on experiences with specimens and data analysis. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Learning occurs through inquiry-based and collaborative activities that integrate reading, writing, speaking, and reflection. The course emphasizes the relevance of Systematics and Evolution in scientific research, biodiversity conservation, and effective science teaching, preparing students to apply these concepts in both educational and real-world conte
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Course Title	Thermodynamics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course develops content-intensive knowledge on concepts and principles governing energy, heat, and work, and their transformations in physical systems. It covers temperature, temperature scales, internal energy, thermal energy, heat, thermal properties of matter, thermodynamic processes, and the laws of thermodynamics, as well as the behavior of pure substances and ideal gases. Through a combination of theoretical discussions, investigations, and practical problem-solving, the course examines processes in closed and open systems, cycles such as Carnot and Rankine, and real-world applications in engineering, physics, and environmental science. Emphasis is placed on developing analytical skills to model and predict system behavior, interpret thermodynamic data, and apply concepts to energy efficiency and sustainability challenges. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with knowledge and skills, and by enhancing their learning experiences (through reading, writing, speaking, and listening) for mastering thermodynamics concepts.

Course Title	Astronomy
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces the fundamental concepts of astronomy. The discussion begins with the historical evolution of astronomical thought, an assessment of the state of astronomy in the Philippines, and the formation of the universe and the solar system. Emphasis is placed on the members of the solar system, particularly the Sun, Earth, its Moon and other planets, dwarf planets, and planetary debris. Stars and galaxies, seasons, tides, eclipses, and space exploration will also be tackled. Updated websites, simulations, high resolution images, scientific papers and videos will be used to make the lectures effective, engaging and interactive. Assessments include written examinations, collaborative projects, and conceptual essays.

Course Title	Biochemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Biochemistry serves as an interdisciplinary course that examines the chemical processes relating to living organisms. It bridges chemistry and biology, focusing on the molecular mechanisms that underpin life. The main objective of this course involves providing

	pre-service teachers with a comprehensive understanding of the molecular basis of biological processes. Upon completion, pre-service teachers can analyze biochemical pathways, interpret experimental data, and apply biochemical principles to solve problems in areas such as medicine, biotechnology, and nutrition. The course builds from foundational concepts to advanced applications, integrating theoretical and practical aspects. Key topics include biomolecules, metabolism, protein structure and function, nucleic acids and gene expression, signal transduction and cellular communication, and biochemical techniques. The course emphasizes integrating concepts with real-world examples from health, agriculture, and environmental science. The instructor employs a variety of engaging and interactive methods to promote deep learning and practical skills, such as lectures, laboratory practicals, seminars and group work, digital tools, and invited experts. The course features diverse assessments to evaluate both theoretical knowledge and practical abilities, with ongoing feedback, such as exams, quizzes and assignments, laboratory evaluations, projects or presentations, and class participation. The laboratory component provides hands-on, inquiry-based opportunities for learners to apply scientific concepts and process skills, and master safety protocols.
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Course Title	Electricity and Magnetism
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course cultivates the content competence of pre-service teachers in electricity, magnetism, and electromagnetism. It includes topics on electrostatics and magnetism, electric and magnetic fields in matter, electrodynamics, and electromagnetic waves. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning electromagnetism allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.

Course Title	Cell and Molecular Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course explores the structure and function of cells, their organelles, and the molecular processes that sustain life. It focuses on the roles of biomolecules such as DNA, RNA, proteins, and lipids in cellular activities, including genetic regulation and energy transformation. Students will also learn basic molecular techniques such as DNA and protein analysis, genetic engineering, and applications of biotechnology. The course aims to develop scientific understanding, laboratory skills, and critical thinking among pre-service teachers. Learning takes place through lectures, laboratory experiments, and inquiry-based activities that connect theory with practice. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasis is placed on applying molecular and cellular concepts to real-world contexts, particularly in health, genetics, and biotechnology. This course prepares students to effectively teach and apply cell and molecular biology concepts in secondary education and everyday life.

Course Title	Waves and Optics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course cultivates the content competence of pre-service teachers in waves and optics. It deals with the production and propagation of waves, in addition to wave characteristics, types, and properties. The generation, control, transmission, reception, and effects of sound waves (including vibration, ultrasound, and infrasound) in gases, liquids, and solids are also considered. Furthermore, the nature and duality of light are dealt with in physical and geometric optics applications. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning waves and optics allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.

Course Title	Biodiversity and Ecology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	Biodiversity and Ecology explores the complex interactions between living organisms and their environment. This course focuses on understanding biodiversity, ecological principles, human intervention, and conservation strategies to develop scientific knowledge and skills in critical thinking and problem-solving. This course is essential for science majors, providing a foundation for understanding ecosystem balance and environmental sustainability. Through lectures, discussions, hands-on activities, and learner-centered pedagogy, learners will engage with real-world scenarios, developing the ability to address environmental challenges. Assignments may include case studies, research projects, laboratory experimentation, and field observations. Materials include textbooks, online resources, and local ecosystem explorations. Assessments comprise quizzes, exams, and project presentations. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills and master safety protocols. By taking this course, pre-service teachers will gain a deeper understanding of ecological systems and develop skills to promote environmental stewardship, enhancing their teaching and scientific inquiry abilities.

Course Title	Modern Physics
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course develops content-intensive knowledge in modern physics. It provides an exploration of revolutionary ideas that shaped 20th and 21st-century physics. Emphasis is placed on the mathematical formulation of physical principles, the interpretation of experimental evidence, and the application of modern theories to real-world phenomena. It covers foundations of special and general relativity, quantum mechanics, and atomic and nuclear physics. Selected topics in particle physics and cosmology are

	included in the course. Through problem-solving, simulations, and conceptual discussions, pre-service teachers will develop both analytical skills and a deeper appreciation for the counterintuitive nature of the physical universe, gaining the ability to critically evaluate scientific claims, design and interpret experiments, and apply theoretical frameworks to novel and complex situations across multiple domains of physics.
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Course Title	Teaching of Electronics and Robotics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids) Electricity and Magnetism Waves and Optics
Description	This course is an introduction to the fundamental principles of electronics and robotics, blending theoretical knowledge with hands-on application and pedagogical activities. Here, pre-service teachers apply the fundamentals of electricity, electronic components, and circuit design, progressing toward the integration of sensors, actuators, and microcontrollers for building functional robotic systems. The integration of these concepts and principles in high school science is included. In addition to experiments, projects, and lesson plans, assessment activities may include hands-on tasks and oral presentations. This course cultivates the content competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with knowledge and skills, and by enhancing their learning experiences (through reading, writing, speaking, and listening) for mastering scientific content in electronics and robotics.

Course Title	Physical Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Physical Chemistry provides a comprehensive study of the principles that link the macroscopic and microscopic behaviors of matter through the application of physics to chemical systems. The course aims to develop pre-service teachers' understanding of the quantitative and theoretical aspects of chemistry, enabling them to explain and predict chemical phenomena using mathematical and conceptual models. The course content includes major topics such as thermodynamics, chemical kinetics, quantum chemistry, electrochemistry, and spectroscopy. It emphasizes the relationship between energy, matter, and molecular structure, guiding pre-service teachers to analyze how these factors influence chemical reactions and properties. The course employs a variety of teaching approaches such as interactive lectures, problem-solving sessions, laboratory experiments, computer-based simulations, and collaborative discussions. These strategies encourage active engagement, critical thinking, and practical application of physical chemistry concepts. Assessment methods include formative evaluations such as quizzes, problem sets, and laboratory reports, as well as summative assessments such as examinations, performance tasks, and project-based outputs. These assessments measure the pre-service teachers' conceptual understanding, analytical skills, and ability to apply physical chemistry principles to real-world and educational contexts.

Course Title	Green Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry Organic Chemistry

	Biochemistry
Description	Green Chemistry prepares pre-service chemistry teachers to understand and apply the principles of designing chemical products and processes that reduce or eliminate the use and generation of hazardous substances. The course examines fundamental concepts such as waste prevention, atom economy, safer solvents and reagents, energy efficiency, and the use of renewable feedstocks within the broader context of environmental protection and sustainable development. It emphasizes the role of chemistry in addressing contemporary environmental and societal challenges while guiding future teachers to integrate sustainability concepts into science instruction. The course engages learners in analyzing real-world case studies, comparing conventional chemical practices with greener alternatives, and applying green chemistry metrics to evaluate environmental impact and risk reduction. Using a systems thinking approach, the course enables pre-service teachers to develop context-responsive learning materials and experiences that integrate green and sustainable chemistry. In particular, it prepares pre-service teachers to design safe, resource-efficient, and environmentally responsible laboratory activities appropriate for secondary school settings. Through inquiry-based learning, collaborative discussions, and reflective teaching tasks, the course strengthens scientific understanding, critical thinking, systems thinking, and problem-solving skills. It also highlights ethical responsibility, regulatory awareness, and environmental stewardship in chemical practice. By connecting scientific knowledge with pedagogical strategies, the course equips future educators to promote sustainable thinking, responsible chemical use, and environmentally conscious decision-making among learners in diverse educational contexts. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols.

Course Title	Analytical Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Analytical Chemistry develops pre-service teachers' knowledge and skills in the identification, separation, and quantification of chemical substances. The course aims to train pre-service teachers to apply analytical principles and techniques with accuracy, precision, and critical judgment in both laboratory and real-world contexts. The course content covers the fundamentals of qualitative and quantitative analysis, chemical equilibrium, titrimetric and gravimetric methods, chromatography, spectroscopy, and modern instrumental techniques. It emphasizes data collection, error analysis, and interpretation to ensure reliability and validity of analytical results. The course employs teaching approaches such as interactive lectures, problem-based learning, laboratory experiments, group discussions, and computer-assisted data analysis. These strategies encourage inquiry, collaboration, and practical application of analytical concepts in teaching and research. Assessment methods include quizzes, laboratory reports, written examinations, performance tasks, and project presentations. These assessments evaluate learners' conceptual understanding, laboratory proficiency, and ability to integrate analytical methods into scientific investigation and instructional practice.

Course Title	Foundations of Science Teaching for Engaged Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory education courses

Description	This foundational methods course, which equips pre-service teachers with the innovative, context-driven approaches necessary to make science accessible, relevant, and engaging for diverse basic education learners, thereby cultivating the content and skill competence required of a Quality Filipino Science Teacher, focuses its curriculum on developing professional pedagogical content knowledge through mastering the design of inquiry-based lessons, developing hands-on investigations, and integrating digital tools and other emerging technologies to enhance conceptual understanding and scientific literacy. The course introduces the constructivist view of the nature of science and emphasizes seven cross-cutting concepts: patterns; cause and effect; scale, proportion, and quantity; systems; matter and energy flow; structure and function; and stability and change. It promotes developmentally appropriate pedagogy, community connections, and the crafting of inclusive and culturally responsive assessments via interactive seminars, teaching labs, and professional workshops that reinforce disciplinary practices. The course culminates in performance tasks, including the construction of progressive unit plans, the implementation of microteaching techniques, and the development of comprehensive technology-integrated engagement portfolios and community-connected projects, ultimately establishing foundational science teaching competency.
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Course Title	Research in Science Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Education, Statistics in Education
Description	This course equips pre-service science teachers with the knowledge, skills, and ethical grounding to conduct rigorous educational and scientific research. It develops their ability to design, implement, and communicate both classroom-based action research and pure or investigatory science research that addresses pressing educational and scientific challenges in Philippine contexts. Pre-service teachers explore various research paradigms, methodologies, and analytical tools suited for both educational and experimental studies. Course content includes: (1) foundations and ethics of educational and scientific research; (2) research problem formulation and literature synthesis; (3) quantitative, qualitative, and mixed-methods designs; (4) experimental and investigatory research in the sciences; (5) data collection and analysis using digital tools; (6) research proposal and dissemination strategies; and (7) translating research findings into practice, policy, and innovation. Teaching methods integrate interactive lectures, proposal workshops, guided data analysis, peer review sessions, and research mentoring. Assessments include a mini-investigatory research project, an action research report, a methodological critique, and a research dissemination presentation. By the end of the course, pre-service teachers demonstrate competence in conducting and communicating research that strengthens scientific inquiry, informs pedagogical improvement, and contributes to evidence-based educational reform. This course cultivates reflective and research-driven Quality Filipino Science Teachers ready to advance education and innovation.

Course Title	Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching methods course

Description	This course empowers senior-level pre-service teachers to extend science learning beyond classrooms into museums, community gardens, local industries, and digital public spaces. The course aims to: 1) develop community-responsive learning designs that align disciplinary science with local contexts; 2) demonstrate inclusive facilitation and communication skills for diverse publics; 3) integrate informal education theories and site-based pedagogy into lesson and program planning; 4) evaluate informal learning outcomes with formative and authentic assessments. Contents on this course include: a) foundations of informal and community pedagogy and how it differs from the Science, Technology, Society (STS) general education course by focusing on applied pedagogies and partnership design; b) stakeholder engagement and partnership negotiation with LGUs, NGOs, schools, and industry; c) designing site-based activities, exhibits, and community workshops with attention to safety, accessibility, and cultural relevance; d) technology-enhanced outreach (AR/VR, mobile sensors) and digital mediation; e) assessment strategies for informal settings and reflective practice. Teaching methods include community-based projects, guided fieldwork, stakeholder co-design workshops, microteaching in partner sites, and seminar readings. Assessment methods include a community partnership proposal, an implemented informal learning activity, a technology-enhanced outreach simulation, a reflective capstone portfolio, and peer/community feedback. The course will help pre-service teachers develop professional competencies, ethical community engagement, and assessment literacy that support sustainable partnerships and measurable learner impact across diverse contexts.
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Course Title	Teaching Science Research and Design Thinking in Basic Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of science education
Description	This course empowers pre-service science educators to facilitate advanced scientific inquiry by applying the human-centered, iterative Design Thinking framework to Project-Based Learning (PBL) within basic education, addressing community challenges and promoting national development. Content emphasizes mastering the articulation of Design Thinking principles and the practical stages of the design process—from Discovering and Defining a local problem to Ideating, Prototyping, and Testing contextual solutions—as a robust structure for conducting Science Investigatory Projects (SIP). This process transforms linear scientific research into actionable, applied science. Learning occurs through hands-on laboratory experiences, collaborative design workshops, and instruction that merges SIP competencies with real-world problem-solving. Assessment relies on applied skills through developing comprehensive, standards-aligned PBL unit plans, defending a formal SIP proposal, and demonstrating competence in facilitating peer-teaching demonstrations and the final design thinking portfolio, shaping educators into innovative facilitators of research.

Course Title	Education for Sustainable Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory science and education courses
Description	This course enables pre-service science teachers to integrate the principles of Education for Sustainable Development (ESD) into their teaching practice, cultivating learners who are environmentally conscious, socially responsible, and future-oriented. It equips them to design learning experiences that

	address global and local sustainability issues such as climate change, resource management, biodiversity conservation, and sustainable consumption and pollution. Course content includes: (1) foundations and frameworks of ESD; (2) sustainability concepts and global-local challenges; (3) integrating ESD into science curricula; (4) the ESD Toolbox for instructional strategies, assessment, and community engagement; (5) the ESD Roadmap for school and community implementation; (6) technology for sustainability (e.g., simulations, digital mapping, AR/VR applications); and (7) monitoring and evaluating ESD initiatives. Teaching methods emphasize inquiry-based and project-based learning, as well as community immersion. Learners collaborate in workshops, sustainability audits, and eco-innovation challenges. Assessments include a sustainability-focused lesson plan, community-based project proposal, ESD implementation roadmap, and a reflective portfolio linking practice to policy and advocacy. By the end of the course, pre-service teachers demonstrate their capacity to design transformative, context-sensitive, and technology-enhanced ESD programs. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers committed to sustainable futures.
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Course Title	Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovation for Future Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, foundational courses (e.g. principles of teaching, educational technology)
Description	This course empowers pre-service science teachers to design transformative, technology-enhanced learning environments that bridge classroom, community, and industry. It develops their competence in integrating emerging educational technologies, such as PhET simulations, offline GenDiTool, game-based learning (GBL), and augmented/virtual reality (AR/VR), to create meaningful, context-sensitive science instruction. Learners explore ethical and responsible uses of Artificial Intelligence (AI), data literacy, and digital citizenship within science education. Course content includes: (1) foundations of technology-enhanced pedagogy; (2) inquiry and problem-based science learning; (3) designing tech-integrated lessons using context-appropriate tools; (4) community and industry-linked learning experiences; (5) ethical AI and data use in education; and (6) assessing technology-driven learning outcomes. Teaching methods emphasize active learning, collaborative design workshops, reflective practice, and guided micro-training sessions. Assessment tasks include digital learning prototypes, community partnership proposals, and reflective journals on technology ethics and integration. The culminating requirement is a technology-integrated lesson prototype or micro-training plan demonstrating the learner's ability to design, implement, and evaluate transformative, tech-supported science instruction. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with innovative, ethical, and context-responsive pedagogical skills (through reading, writing, and speaking) for future-ready classrooms.

Course Title	Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching method course

Description	This course enables pre-service science teachers to critically examine and teach pressing socio-scientific issues (SSIs) through the lenses of literacy and numeracy. It develops their ability to engage learners in evidence-based reasoning, data interpretation, and ethical decision-making on current science-related dilemmas in the Philippine context, such as climate change, vaccination, waste management, and energy debates. Course content includes: (1) foundations of literacy and numeracy in science education; (2) frameworks for analyzing socio-scientific issues; (3) evaluating media, data, and policy on key Philippine SSIs; (4) designing literacy- and numeracy-integrated SSI lessons; (5) facilitating classroom discourse and argumentation; and (6) developing community- and policy-oriented responses. Teaching methods emphasize dialogic instruction, project-based learning, critical media analysis, and collaborative debates. Assessments include a media and data analysis portfolio, SSI lesson design project, community-informed policy reflection paper, and a capstone SSI unit plan integrating literacy and numeracy strategies. By the end of the course, pre-service teachers demonstrate their capacity to design and implement inclusive, evidence-driven, and context-sensitive SSI learning experiences. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers who guide learners to think critically, reason ethically, and act responsibly toward socio-scientific challenges.
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B.7 Bachelor of Education Major in EARTH AND SPACE SCIENCE

Course Title	General Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	This course provides an overview of the fundamental principles and concepts in the biological sciences. It focuses on the study of the structure and function of living organisms, biological diversity, heredity, evolution, and the interactions of organisms with their environment. Emphasis is placed on developing conceptual understanding, scientific inquiry, and critical thinking skills. Designed for pre-service teachers, the course aims to build content competence and scientific literacy essential for effective science teaching. Through lectures and laboratory activities, students will integrate theoretical knowledge with practical experience, fostering appreciation of life processes and their relevance to real-world issues. The course highlights the applicability of biology in promoting environmental awareness, health, and sustainable living.

Course Title	General and Inorganic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	
Description	General and Inorganic Chemistry serves as a foundational course that introduces the fundamental principles of chemistry, with a focus on inorganic compounds and their behaviors. It explores the structure of matter, chemical reactions, and the properties of elements and compounds. The course targets equipping pre-service teachers with a solid understanding of chemical concepts and their applications in inorganic systems. The course progresses from basic atomic concepts to complex inorganic systems, integrating theory with practical examples. Key topics include atomic structure and periodicity, chemical bonding (ionic, covalent, metallic), states of matter and phase changes, stoichiometry and chemical calculations, thermodynamics and

	energetics, chemical kinetics and equilibrium, acids and bases, electrochemistry, and coordination chemistry of transition metals. The instructor utilizes a mix of interactive approaches to enhance comprehension and skills development. These methods include weekly lectures with demonstrations and problem-solving sessions, hands-on laboratory experiments focusing on inorganic syntheses and analyses, group discussions and tutorials for conceptual reinforcement, and digital resources like simulations and online modules for visualizing molecular structures. The course employs varied evaluations featuring problem-solving and theoretical questions, regular quizzes and homework assignments on calculations and concepts, laboratory, and a final project or presentation on an inorganic chemistry topic.
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Course Title	General Physics (Mechanics and Fluids)
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	(or corequisite) Precalculus
Description	This course is designed to build a strong foundation in mechanics and fluids. It deals with concepts and principles underlying the motion of physical objects and includes the study of fluids at rest and in motion. It covers the ideas of length, time, mass, force, torque, energy, and momentum, as applied to translational and rotational motion. It also considers both aerodynamics and hydrodynamics, and involves principles relating to speed, pressure, and forces. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasizing both conceptual understanding and quantitative analysis, the course develops skills in scientific investigation, critical thinking, and problem-solving, while highlighting the role of physics in technology, society, and STEM-related fields. A solid foundation in Mechanics and Fluids facilitates further studies in other areas of physics.

Course Title	Precalculus
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares the pre-service teachers for the study of calculus. It begins with analytic geometry to equip pre-service teachers with tools for graphing equations. The focus of the course is the study of functions –the definition of functions, operations on functions, the different types of functions (polynomial, rational, exponential, logarithmic, trigonometric), and their applications. After a short review of trigonometric functions, polar coordinates, and graphs of polar curves are explored. Technological tools like spreadsheets, computer algebra systems (CAS), and graphing applications will be used for exploration and modeling tasks. The course ends with a discussion of sequences and series. Attention is given to graphing functions with or without the aid of technology and applying functions to model real life situations. The pre-service teachers will also draw from their experiences in the course and in high school to analyze difficulties and misconceptions that might be encountered by their future learners in order that they may propose possible interventions.

Course Title	Earth Science
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an overview of geology, meteorology, and oceanography. The discussion begins with the formation of the

	Earth, its composition and structure. Topics such as minerals, rocks, groundwater, geologic structures, geologic time, and weathering, soil, and mass wasting will also be introduced. Emphasis is placed on the interrelationships and interactions between and among Earth's spheres, highlighting the interconnected forces that drive earthquakes, volcanic eruptions, mountain building, landslides, ocean circulations, weather patterns, and climate change. Interactive simulations and videos will be used to make discussions engaging. Assessments include written examinations, collaborative projects, and conceptual essays.
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Course Title	Organic Chemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Organic Chemistry serves as a foundational course that explores the chemistry of carbon-containing compounds, which form the basis of life and many synthetic materials. It aims to equip them with a deep understanding of the structure, reactivity, and synthesis of organic molecules. By the end of the course, pre-service teachers demonstrate the ability to predict reaction outcomes, design simple syntheses, and apply organic chemistry concepts to real-world problems in fields such as pharmaceuticals, materials science, and environmental science. The course presents key topics in organic chemistry, progressing from basic structures to advanced reactions and applications. Major units include Introduction to Organic Compounds, Stereochemistry, Reaction Mechanisms, Aromatic Chemistry, and Carbonyl Compounds. The course employs interactive and hands-on approaches such as lectures, laboratory sessions, tutorials and discussions, online resources, and guest lectures to facilitate learning. It evaluates pre-service teachers' performance through a combination of formative and summative assessments to ensure comprehensive mastery of the learning competencies. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols.

Course Title	Systematics and Evolution
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course provides an in-depth study of the diversity and evolutionary relationships of living organisms through the principles of classification, description, nomenclature, and evolution. It focuses on understanding how organisms are identified, organized, and related based on morphological, molecular, and evolutionary evidence. Students will develop analytical and critical thinking skills as they explore methods of reconstructing phylogenetic relationships and interpreting evolutionary patterns. Designed for pre-service teachers, the course aims to build scientific competence and deepen understanding of biological diversity and evolution through lectures, laboratory work, and hands-on experiences with specimens and data analysis. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Learning occurs through inquiry-based and collaborative activities that integrate reading, writing, speaking, and reflection. The course emphasizes the relevance of Systematics and Evolution in scientific research, biodiversity conservation, and effective science teaching.

	preparing students to apply these concepts in both educational and real-world conte
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Course Title	Thermodynamics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course develops content-intensive knowledge on concepts and principles governing energy, heat, and work, and their transformations in physical systems. It covers temperature, temperature scales, internal energy, thermal energy, heat, thermal properties of matter, thermodynamic processes, and the laws of thermodynamics, as well as the behavior of pure substances and ideal gases. Through a combination of theoretical discussions, investigations, and practical problem-solving, the course examines processes in closed and open systems, cycles such as Carnot and Rankine, and real-world applications in engineering, physics, and environmental science. Emphasis is placed on developing analytical skills to model and predict system behavior, interpret thermodynamic data, and apply concepts to energy efficiency and sustainability challenges. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with knowledge and skills, and by enhancing their learning experiences (through reading, writing, speaking, and listening) for mastering thermodynamics concepts.

Course Title	Astronomy
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces the fundamental concepts of astronomy. The discussion begins with the historical evolution of astronomical thought, an assessment of the state of astronomy in the Philippines, and the formation of the universe and the solar system. Emphasis is placed on the members of the solar system, particularly the Sun, Earth, its Moon and other planets, dwarf planets, and planetary debris. Stars and galaxies, seasons, tides, eclipses, and space exploration will also be tackled. Updated websites, simulations, high resolution images, scientific papers and videos will be used to make the lectures effective, engaging and interactive. Assessments include written examinations, collaborative projects, and conceptual essays.

Course Title	Biochemistry
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General and Inorganic Chemistry
Description	Biochemistry serves as an interdisciplinary course that examines the chemical processes relating to living organisms. It bridges chemistry and biology, focusing on the molecular mechanisms that underpin life. The main objective of this course involves providing pre-service teachers with a comprehensive understanding of the molecular basis of biological processes. Upon completion, pre-service teachers can analyze biochemical pathways, interpret experimental data, and apply biochemical principles to solve problems in areas such as medicine, biotechnology, and nutrition.

	The course builds from foundational concepts to advanced applications, integrating theoretical and practical aspects. Key topics include biomolecules, metabolism, protein structure and function, nucleic acids and gene expression, signal transduction and cellular communication, and biochemical techniques. The course emphasizes integrating concepts with real-world examples from health, agriculture, and environmental science. The instructor employs a variety of engaging and interactive methods to promote deep learning and practical skills, such as lectures, laboratory practicals, seminars and group work, digital tools, and invited experts. The course features diverse assessments to evaluate both theoretical knowledge and practical abilities, with ongoing feedback, such as exams, quizzes and assignments, laboratory evaluations, projects or presentations, and class participation. The laboratory component provides hands-on, inquiry-based opportunities for learners to apply scientific concepts and process skills, and master safety protocols.
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Course Title	Electricity and Magnetism
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)
Description	This course cultivates the content competence of pre-service teachers in electricity, magnetism, and electromagnetism. It includes topics on electrostatics and magnetism, electric and magnetic fields in matter, electrodynamics, and electromagnetic waves. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning electromagnetism allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.

Course Title	Cell and Molecular Biology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	This course explores the structure and function of cells, their organelles, and the molecular processes that sustain life. It focuses on the roles of biomolecules such as DNA, RNA, proteins, and lipids in cellular activities, including genetic regulation and energy transformation. Students will also learn basic molecular techniques such as DNA and protein analysis, genetic engineering, and applications of biotechnology. The course aims to develop scientific understanding, laboratory skills, and critical thinking among pre-service teachers. Learning takes place through lectures, laboratory experiments, and inquiry-based activities that connect theory with practice. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. Emphasis is placed on applying molecular and cellular concepts to real-world contexts, particularly in health, genetics, and biotechnology. This course prepares students to effectively teach and apply cell and molecular biology concepts in secondary education and everyday life.

Course Title	Waves and Optics
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Physics (Mechanics and Fluids)

Description	This course cultivates the content competence of pre-service teachers in waves and optics. It deals with the production and propagation of waves, in addition to wave characteristics, types, and properties. The generation, control, transmission, reception, and effects of sound waves (including vibration, ultrasound, and infrasound) in gases, liquids, and solids are also considered. Furthermore, the nature and duality of light are dealt with in physical and geometric optics applications. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills, and master safety protocols. In addition to diagnostic tests, quizzes, problem sets, examinations, and investigations or experiments, assessment activities may include conceptual essays, hands-on tasks, portfolios, and oral presentations. Learning waves and optics allows pre-service teachers to gain insights on the impact of these concepts at both individual and societal levels.
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Course Title	Biodiversity and Ecology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	General Biology
Description	Biodiversity and Ecology explores the complex interactions between living organisms and their environment. This course focuses on understanding biodiversity, ecological principles, human intervention, and conservation strategies to develop scientific knowledge and skills in critical thinking and problem-solving. This course is essential for science majors, providing a foundation for understanding ecosystem balance and environmental sustainability. Through lectures, discussions, hands-on activities, and learner-centered pedagogy, learners will engage with real-world scenarios, developing the ability to address environmental challenges. Assignments may include case studies, research projects, laboratory experimentation, and field observations. Materials include textbooks, online resources, and local ecosystem explorations. Assessments comprise quizzes, exams, and project presentations. The laboratory component provides hands-on, inquiry-based opportunities for students to apply scientific concepts and process skills and master safety protocols. By taking this course, pre-service teachers will gain a deeper understanding of ecological systems and develop skills to promote environmental stewardship, enhancing their teaching and scientific inquiry abilities.

Course Title	Observational Astronomy
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	Electromagnetism Waves and Optics Astronomy
Description	This course provides a hands-on introduction to observational astronomy. Topics such as the night sky, celestial motions, astronomical coordinate systems, telescopes, and other astronomical observation techniques will be discussed. Pre-service teachers will experience using star charts, real-time astronomy simulations, and astronomical instruments such as telescopes to locate, observe, and identify planets, distant stars, nebulae, and galaxies. The course integrates lecture and laboratory components. Lectures facilitate interactive discussions and conceptual exploration, while the laboratory component provides hands-on, inquiry-based opportunities for students to apply skills in night sky observation, telescope viewing, and master safety protocols. Assessments include written examinations, collaborative projects, observation reports, conceptual essays, and reflective journals.

Course Title	Geology
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	Earth Science
Description	This course provides an in-depth discussion of key Geology topics. Emphasis is placed on topics such as the rock cycle, plate tectonics, geological processes such as mountain building, volcanism, and earthquake, surface processes such as weathering, soil, and mass wasting, the hydrologic cycle, running water and groundwater, geologic structures and deformations, stratigraphic principles, and geologic time. The course integrates lecture and laboratory components. Lectures facilitate interactive discussions and conceptual exploration, while the laboratory component provides hands-on, inquiry-based opportunities for students to scientific concepts and process skills, and master safety protocols. Assessments include written examinations, conceptual essays, collaborative projects, fieldwork, laboratory reports, and reflective journals.

Course Title	Oceanography
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	(corequisite) Atmospheric and Climate Sciences
Description	This course introduces the interconnected system of the world's oceans. Discussion will focus on the key concepts of physical, chemical, biological, and geological oceanography and how they work together to create one of Earth's most complex and influential environments—the oceans. Pre-service teachers classify marine organisms by ecological zones and their adaptations to different ocean environments, interpret temperature, salinity, and density profiles to understand water mass structure and mixing processes, explain the formation of mid-ocean ridges, abyssal plains, trenches, and continental margins, and evaluate plate tectonic processes at ocean basins and their influence on seafloor spreading and subduction. The course integrates lecture and laboratory components. Lectures facilitate interactive discussions and conceptual exploration, while the laboratory component provides hands-on, inquiry-based opportunities for students to scientific concepts and process skills, and master safety protocols. Assessments include written examinations, conceptual essays, fieldwork, laboratory reports, and reflective journals.

Course Title	Atmospheric and Climate Sciences
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	(corequisite) Oceanography
Description	This course introduces the Earth's atmosphere, the fundamental principles governing weather phenomena and their connection to larger climate systems. Emphasis is placed on the structure and composition of the atmosphere, atmospheric stability, cloud formation, precipitation processes, wind patterns, seasonal winds affecting the Philippines, severe weather events affecting the Philippines such as tropical cyclones, ITCZ, shear line, climate systems, Philippine climate, climate change, climate dynamics including global circulation, ocean-atmosphere interactions, and climate variability modes such as the El Niño-Southern Oscillation (ENSO). The course integrates lecture and laboratory components. Lectures facilitate interactive discussions and conceptual exploration, while the laboratory component provides hands-on, inquiry-based opportunities for students to scientific concepts and process skills, and master safety protocols. Assessments include written examinations, conceptual essays, fieldwork, laboratory reports, and case studies.

Course Title	Natural Hazards and Disasters
Course Credits	4 units (3 units lecture, 1 unit laboratory)
Contact Hours	102-108 hours
Prerequisite/s	(corequisite) Geology
Description	This course introduces the natural hazards and disasters affecting the Philippines. Geologic hazards such as earthquakes, landslides, tsunamis, and volcanic eruptions as well as meteorological and hydrological events such as tropical cyclones, floods, and droughts will be discussed. A significant focus is placed on disaster management, encompassing mitigation planning, preparedness protocols, emergency response coordination, recovery frameworks, and community resilience building. After learning about the fundamental processes underlying geological hazards, students read and analyze seismic hazard maps, flood zone maps, volcanic hazard assessments, and severe weather probability maps, identify factors that affect community vulnerability to natural hazards, describe the roles of various agencies and organizations in disaster response, relief, and recovery operations, and propose emergency preparedness strategies for communities based on local hazard profiles. The course integrates lecture and laboratory components. Lectures facilitate interactive discussions and conceptual exploration, while the laboratory component provides hands-on, inquiry-based opportunities for students to scientific concepts and process skills, and master safety protocols. Assessments include written examinations, conceptual essays, assessment reports, and case studies.

Course Title	Foundations of Science Teaching for Engaged Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory education courses
Description	This foundational methods course, which equips pre-service teachers with the innovative, context-driven approaches necessary to make science accessible, relevant, and engaging for diverse basic education learners, thereby cultivating the content and skill competence required of a Quality Filipino Science Teacher, focuses its curriculum on developing professional pedagogical content knowledge through mastering the design of inquiry-based lessons, developing hands-on investigations, and integrating digital tools and other emerging technologies to enhance conceptual understanding and scientific literacy. The course introduces the constructivist view of the nature of science and emphasizes seven cross-cutting concepts: patterns; cause and effect; scale, proportion, and quantity; systems; matter and energy flow; structure and function; and stability and change. It promotes developmentally appropriate pedagogy, community connections, and the crafting of inclusive and culturally responsive assessments via interactive seminars, teaching labs, and professional workshops that reinforce disciplinary practices. The course culminates in performance tasks, including the construction of progressive unit plans, the implementation of microteaching techniques, and the development of comprehensive technology-integrated engagement portfolios and community-connected projects, ultimately establishing foundational science teaching competency.

Course Title	Research in Science Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Education, Statistics in Education
Description	This course equips pre-service science teachers with the knowledge, skills, and ethical grounding to conduct rigorous educational and scientific research. It develops their ability to

	design, implement, and communicate both classroom-based action research and pure or investigatory science research that addresses pressing educational and scientific challenges in Philippine contexts. Pre-service teachers explore various research paradigms, methodologies, and analytical tools suited for both educational and experimental studies. Course content includes: (1) foundations and ethics of educational and scientific research; (2) research problem formulation and literature synthesis; (3) quantitative, qualitative, and mixed-methods designs; (4) experimental and investigatory research in the sciences; (5) data collection and analysis using digital tools; (6) research proposal and dissemination strategies; and (7) translating research findings into practice, policy, and innovation. Teaching methods integrate interactive lectures, proposal workshops, guided data analysis, peer review sessions, and research mentoring. Assessments include a mini-investigatory research project, an action research report, a methodological critique, and a research dissemination presentation. By the end of the course, pre-service teachers demonstrate competence in conducting and communicating research that strengthens scientific inquiry, informs pedagogical improvement, and contributes to evidence-based educational reform. This course cultivates reflective and research-driven Quality Filipino Science Teachers ready to advance education and innovation.
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Course Title	Beyond the Classroom: Innovating Science Education Through Informal and Community Pedagogies
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching methods course
Description	This course empowers senior-level pre-service teachers to extend science learning beyond classrooms into museums, community gardens, local industries, and digital public spaces. The course aims to: 1) develop community-responsive learning designs that align disciplinary science with local contexts; 2) demonstrate inclusive facilitation and communication skills for diverse publics; 3) integrate informal education theories and site-based pedagogy into lesson and program planning; 4) evaluate informal learning outcomes with formative and authentic assessments. Contents on this course include: a) foundations of informal and community pedagogy and how it differs from the Science, Technology, Society (STS) general education course by focusing on applied pedagogies and partnership design; b) stakeholder engagement and partnership negotiation with LGUs, NGOs, schools, and industry; c) designing site-based activities, exhibits, and community workshops with attention to safety, accessibility, and cultural relevance; d) technology-enhanced outreach (AR/VR, mobile sensors) and digital mediation; e) assessment strategies for informal settings and reflective practice. Teaching methods include community-based projects, guided fieldwork, stakeholder co-design workshops, microteaching in partner sites, and seminar readings. Assessment methods include a community partnership proposal, an implemented informal learning activity, a technology-enhanced outreach simulation, a reflective capstone portfolio, and peer/community feedback. The course will help pre-service teachers develop professional competencies, ethical community engagement, and assessment literacy that support sustainable partnerships and measurable learner impact across diverse contexts.

Course Title	Teaching Science Research and Design Thinking in Basic Education
Course Credits	3 units

Contact Hours	51-54 hours
Prerequisite/s	Foundations of science education
Description	This course empowers pre-service science educators to facilitate advanced scientific inquiry by applying the human-centered, iterative Design Thinking framework to Project-Based Learning (PBL) within basic education, addressing community challenges and promoting national development. Content emphasizes mastering the articulation of Design Thinking principles and the practical stages of the design process—from Discovering and Defining a local problem to Ideating, Prototyping, and Testing contextual solutions—as a robust structure for conducting Science Investigatory Projects (SIP). This process transforms linear scientific research into actionable, applied science. Learning occurs through hands-on laboratory experiences, collaborative design workshops, and instruction that merges SIP competencies with real-world problem-solving. Assessment relies on applied skills through developing comprehensive, standards-aligned PBL unit plans, defending a formal SIP proposal, and demonstrating competence in facilitating peer-teaching demonstrations and the final design thinking portfolio, shaping educators into innovative facilitators of research.

Course Title	Education for Sustainable Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introductory science and education courses
Description	This course enables pre-service science teachers to integrate the principles of Education for Sustainable Development (ESD) into their teaching practice, cultivating learners who are environmentally conscious, socially responsible, and future-oriented. It equips them to design learning experiences that address global and local sustainability issues such as climate change, resource management, biodiversity conservation, and sustainable consumption and pollution. Course content includes: (1) foundations and frameworks of ESD; (2) sustainability concepts and global-local challenges; (3) integrating ESD into science curricula; (4) the ESD Toolbox for instructional strategies, assessment, and community engagement; (5) the ESD Roadmap for school and community implementation; (6) technology for sustainability (e.g., simulations, digital mapping, AR/VR applications); and (7) monitoring and evaluating ESD initiatives. Teaching methods emphasize inquiry-based and project-based learning, as well as community immersion. Learners collaborate in workshops, sustainability audits, and eco-innovation challenges. Assessments include a sustainability-focused lesson plan, community-based project proposal, ESD implementation roadmap, and a reflective portfolio linking practice to policy and advocacy. By the end of the course, pre-service teachers demonstrate their capacity to design transformative, context-sensitive, and technology-enhanced ESD programs. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers committed to sustainable futures.

Course Title	Designing a Transformative Classroom: Technology-Enhanced Pedagogical Innovation for Future Learning
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, foundational courses (e.g. principles of teaching, educational technology)
Description	This course empowers pre-service science teachers to design transformative, technology-enhanced learning environments that bridge classroom, community, and industry. It develops their

	competence in integrating emerging educational technologies, such as PhET simulations, offline GenDiTool, game-based learning (GBL), and augmented/virtual reality (AR/VR), to create meaningful, context-sensitive science instruction. Learners explore ethical and responsible uses of Artificial Intelligence (AI), data literacy, and digital citizenship within science education. Course content includes: (1) foundations of technology-enhanced pedagogy; (2) inquiry and problem-based science learning; (3) designing tech-integrated lessons using context-appropriate tools; (4) community and industry-linked learning experiences; (5) ethical AI and data use in education; and (6) assessing technology-driven learning outcomes. Teaching methods emphasize active learning, collaborative design workshops, reflective practice, and guided micro-training sessions. Assessment tasks include digital learning prototypes, community partnership proposals, and reflective journals on technology ethics and integration. The culminating requirement is a technology-integrated lesson prototype or micro-training plan demonstrating the learner's ability to design, implement, and evaluate transformative, tech-supported science instruction. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with innovative, ethical, and context-responsive pedagogical skills (through reading, writing, and speaking) for future-ready classrooms.
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Course Title	Socio-Scientific Issues in Science Teaching: A Literacy and Numeracy Approach
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Core science content courses, Introductory teaching method course
Description	This course enables pre-service science teachers to critically examine and teach pressing socio-scientific issues (SSIs) through the lenses of literacy and numeracy. It develops their ability to engage learners in evidence-based reasoning, data interpretation, and ethical decision-making on current science-related dilemmas in the Philippine context, such as climate change, vaccination, waste management, and energy debates. Course content includes: (1) foundations of literacy and numeracy in science education; (2) frameworks for analyzing socio-scientific issues; (3) evaluating media, data, and policy on key Philippine SSIs; (4) designing literacy- and numeracy-integrated SSI lessons; (5) facilitating classroom discourse and argumentation; and (6) developing community- and policy-oriented responses. Teaching methods emphasize dialogic instruction, project-based learning, critical media analysis, and collaborative debates. Assessments include a media and data analysis portfolio, SSI lesson design project, community-informed policy reflection paper, and a capstone SSI unit plan integrating literacy and numeracy strategies. By the end of the course, pre-service teachers demonstrate their capacity to design and implement inclusive, evidence-driven, and context-sensitive SSI learning experiences. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers who guide learners to think critically, reason ethically, and act responsibly toward socio-scientific challenges.

B.8 Bachelor of Education Major in SOCIAL STUDIES

Course Title	Social Studies Foundations and the Curriculum
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	

Description	The course provides an overview of the comprehensive framework and organization of Social Studies as a learning area in the Secondary Education Curriculum. It also examines the disciplines of History, Geography, Economics, Political Science, Sociology, and other Social Sciences as sources of content and relates this foundational knowledge to the present design and structure of the Social Studies curriculum taught in schools. It also investigates the historical development of the Social Studies Curriculum in the Philippines in terms of the articulation of its goals, framework, and organization of content and skills. At the end of the course, the pre-service teachers are expected to articulate the significance of Social Studies in Secondary Education and reflect on their values and goals for them to be able to formulate their personal philosophy as Social Studies teachers.
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Course Title	Critical Perspectives on Philippine History and Nation-Building
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an in-depth exploration of Philippine history and nation-building through the lens of historiography—the study of how history is written and interpreted. It introduces key concepts, methods, and critical perspectives in understanding the development of Philippine historical writing from colonial to contemporary times. Pre-service teachers will examine various frameworks, such as the tripartite view of history, pantayong pananaw, and nationalist historiography, to analyze how historical narratives shape Filipino identity and collective memory. The course also critiques dominant and outdated interpretations of the past to recover marginalized, silenced, and forgotten voices in Philippine history. By the end of the course, pre-service teachers are expected to demonstrate critical historical thinking through a preliminary research paper on local history that highlights the Filipino perspective, promotes historical accuracy, and encourages active citizenship. Ultimately, the course aims to cultivate reflective educators who appreciate the power of historiography in shaping a more inclusive and informed vision of the Philippine nation.

Course Title	Geographies of the Philippines: Places, Landscapes, and Change
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course examines the physical and human geographies of the Philippines to develop geographic and spatial thinking essential for understanding the nation's development, diversity, and identity within Southeast Asia, Asia, and the wider world. It analyzes how places, landscapes, and spatial processes shape historical and contemporary transformations by exploring the interactions among environment, culture, population, and economy. Emphasizing the civic purpose of geography, the course enables pre-service teachers to connect spatial inquiry with issues of sustainability, equity, and national development. Through digital mapping, spatial analysis, and field-based learning, pre-service teachers investigate regional patterns, urbanization, environmental change, and social resilience. By the end of the course, they demonstrate the ability to interpret spatial relationships across scales and time, integrating geographic perspectives to explain how the Philippines' physical and human landscapes shape—and are shaped by—regional and

	global interconnections, cultivating civic awareness and a deepened love for the Philippines.
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Course Title	Philippine Democracy, Citizenship, and the Constitution
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course explores the foundations, principles, and practices of Philippine democracy and citizenship, emphasizing civic knowledge as the foundation of civic competence—the central aim of Social Studies education. It examines how historical, socio-cultural, political, and legal forces shape democratic institutions, rights, and responsibilities within the constitutional framework governing national and local life. Pre-service teachers analyze constitutional principles, structures of government, and participatory mechanisms that promote accountability, inclusion, and people's empowerment. The course highlights the importance of active citizenship and the ethical responsibilities of democratic participation in sustaining nation-building. Through evidence-informed inquiry, deliberative dialogue, and reflective practice, learners connect constitutional and civic concepts with contemporary issues in governance, citizenship, and community life. By the end of the course, pre-service teachers demonstrate the ability to apply civic knowledge, constitutional literacy, and democratic values in promoting participatory, just, and responsive governance grounded in love of country and commitment to the common good.

Course Title	Microeconomic Principles and Citizenship Applications
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces the fundamental principles of microeconomics and their applications to everyday decision-making and citizenship. It examines the core concepts of scarcity, opportunity cost, demand and supply, production, markets, and taxation as essential frameworks for understanding how individuals and institutions make choices. The course emphasizes financial literacy by enabling pre-service teachers to interpret data, prepare personal budgets, analyze consumption and saving behavior, and evaluate how government taxation and market forces influence income distribution and social equity. Through contextualized case studies and data-driven inquiry, pre-service teachers will develop the capacity to apply microeconomic reasoning in promoting responsible financial behavior, informed civic participation, and inclusive growth. Ultimately, this course aims to develop financially literate, socially responsible, and reflective future educators capable of guiding learners toward meaningful engagement in building an equitable and resilient economy.

Course Title	Southeast Asian Histories and the Philippine Experience
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	

Description	This course prepares Social Studies pre-service teachers to explore the histories of Southeast Asia in a comparative and integrative lens, focusing on the Philippines' connections and shared experiences within the region. It develops foundational knowledge, contextual perspectives, and civic engagement by exploring geography, ancient civilizations, colonial encounters, nationalism, and the integration of the Association of Southeast Asian Nations (ASEAN). Using socio-cultural sources and regional case studies, pre-service teachers examine migration, trade, resistance, and diplomacy. Through a variety of learning activities, pre-service teachers learn about the Philippines' connections to Southeast Asian histories and how they affect Filipino life. This helps them develop historical empathy and analytical thinking. Thematic lessons combine learning about geography with learning about history and being aware of the region. Learning goes from basic ideas to applied civic reflection, with the help of scholarly texts, digital archives, and ASEAN policy resources. Field-based or community-oriented activities enhance experiential learning and link classroom knowledge to practical civic processes. Through active participation, pre-service teachers develop historical literacy, regional awareness, and public communication skills crucial for transformative education.
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Course Title	Peace and Human Rights Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces pre-service teachers to the essential knowledge, skills, and values needed to become active agents of peace, justice, and human rights in diverse settings. It builds on a foundational understanding of peace, justice, and human rights through a combination of theory, practice, and reflection. In this course, pre-service teachers explore historical and contemporary dimensions of peace and human rights in local, national, and global contexts, emphasizing the interconnectedness of mutually reinforcing factors that influence the initiatives for creating peaceful environments. It also equips learners with the capacity to apply conflict-sensitive and transformative approaches in educational settings, fostering safe, inclusive, and respectful learning environments. Through experiential activities, reflective exercises, and project-based learning, pre-service teachers design lesson plans and assessment tools that integrate a peace lens. The course culminates with a micro-teaching, where re-service teachers integrate a peace lens in facilitating learning in simulated and real classroom settings.

Course Title	Asian Histories, Cultures, and Contemporary Issues
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course examines Asia from the perspective of the Philippines as an integral part of the region's historical, cultural, and contemporary landscape. It traces the evolution of Asian civilizations, philosophies, and social formations while situating the Philippines' shared and distinctive experiences within this broader context. Learners critically analyze colonial legacies, independence movements, and interregional exchanges to explain their influence on identity formation, regional relations, and solidarity. The course also engages learners in evaluating contemporary issues—globalization, migration, digital transformation, climate change, and gender equality—and their implications for the Philippines' role in Asia. Through comparative and interdisciplinary inquiry, pre-service

	teachers develop regional literacy, analytical reasoning, and intercultural competence essential for effective Social Studies teaching. Ultimately, the course cultivates civic awareness, cultural intelligence, and pedagogical innovation, empowering future teachers to interpret Asia's dynamics and advance the Philippines' democratic and developmental aspirations in an interconnected regional community teachers to interpret Asia's dynamics and advance the Philippines' democratic and developmental aspirations in an interconnected regional community.
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Course Title	Global Histories: Ideas, Movements, and Transformations
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course examines world history as a body of knowledge that explains the present and empowers Filipinos to act meaningfully within it. It traces the development of transformative ideas, social movements, and global systems—from revolutions and colonialism to globalization and digital change—and reveals how these forces shape contemporary issues such as inequality, democracy, migration, and the climate crisis. By connecting global histories to the Philippine experience, learners recognize how world events have influenced the nation's struggles for freedom, social justice, and identity. The course cultivates critical historical reasoning, ethical reflection, and civic imagination, enabling learners to understand global interdependence and their agency as citizens of both the nation and the world. Ultimately, it prepares future educators to use historical understanding as a tool for interpretation and transformation, inspiring collective action toward a just, inclusive, and sustainable future for the Philippines.

Course Title	Research and Creative Works in Social Studies Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service Social Studies teachers with two complementary pathways for knowledge creation: research and creative works. It develops their ability to design and conduct ethical, evidence-based, and socially relevant inquiries that inform pedagogy and deepen civic understanding. Learners engage with theories, paradigms, and methods across qualitative, quantitative, mixed-method, and creative approaches to investigate issues such as citizenship education, curriculum reform, and cultural representation. Guided by reflective and continuous improvement cycles, pre-service teachers may undertake scholarly research or produce creative works—such as digital narratives, visual ethnographies, or multimedia presentations—that communicate complex social realities in accessible and engaging ways. These outputs combine analytical rigor, ethical awareness, and imaginative expression, demonstrating the capacity to use inquiry as both a scientific and creative tool. Integrating research and creativity, the course cultivates reflective and socially responsive educators who advance democratic, inclusive, and transformative Social Studies education.

Course Title	Macroeconomics and Philippine Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Microeconomic Principles and Citizenship Applications
Description	This course provides an in-depth exploration of macroeconomic principles and their applications to the Philippine development experience, emphasizing how national growth, stability, and

	sustainability are shaped by the interaction of economic systems, institutions, and policies. It introduces key concepts such as national income accounting, economic growth, inflation, unemployment, fiscal and monetary policy, international trade, and globalization, and connects these to the country's historical, structural, and contemporary development trajectories. Pre-service teachers examine macroeconomic indicators to interpret economic performance, evaluate policy effectiveness, and identify opportunities for inclusive development. The course highlights the Philippine development experience as a lens for understanding how macroeconomic decisions influence national priorities and people's welfare. It underscores the shared responsibilities of government, institutions, and citizens in advancing ethical, equitable, and sustainable growth, cultivating economic literacy and civic competence essential for informed participation and responsible nation-building.
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Course Title	Technology for Teaching and Learning in Social Studies
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course enables pre-service teachers to effectively integrate context-appropriate technology, artificial intelligence, and digital innovations in Social Studies education. It focuses on advancing digital literacy and technological agility through the creative and responsible use of digital tools and platforms for instruction. Pre-service teachers design and develop multimedia and AI-assisted instructional materials that enhance learners' inquiry, problem-solving, and data analysis skills in exploring social, historical, political, and geographical issues. The course encourages the use of virtual simulations, augmented realities, interactive maps, digital storytelling, learning management systems, and emerging technologies to create engaging and inclusive learning experiences. It also examines ethical and professional considerations in technology use to promote digital citizenship and integrity in educational practices. Through hands-on projects and technology-enabled instructional materials development, pre-service teachers apply research-informed teaching to prepare them to navigate and lead in digitally connected, data-driven, and future-ready Social Studies classrooms.

Course Title	Assessment in Social Studies
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course engages pre-service teachers in designing, developing, and applying varied assessment strategies suited to the unique contexts of Social Studies education. It emphasizes the integration of traditional tests and authentic assessments that measure learners' critical thinking, civic competence, and understanding of social realities. Pre-service teachers construct objectives and examinations aligned with disciplinary standards while developing performance-based tasks such as community projects, case studies, and digital portfolios. The course introduces the use of artificial intelligence tools, research-based methods, and basic statistical techniques to analyze learner data, interpret results, and enhance feedback mechanisms. It also trains pre-service teachers to create evidence-based grading systems that ensure fairness and accuracy in evaluation. Through reflective and data-informed assessment practices, pre-service teachers cultivate professional judgment, accountability, and a deeper appreciation of assessment as a transformative tool in Social Studies learning.

Course Title	Pedagogies in Social Studies
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course immerses pre-service teachers in research-based pedagogical approaches that promote meaningful, inclusive, and future-oriented Social Studies teaching and learning. It emphasizes 21st-century pedagogies, brain-based learning, inquiry-driven instruction, and flexible learning modalities responsive to the demands of a Disruption, Volatility, Uncertainty, Complexity, and Diversity (D-VUCAD) world. Pre-service teachers design and implement thematic, interdisciplinary, outcomes-based, and problem-solving learning experiences that connect Social Studies with other disciplines. The course provides opportunities for adaptive teaching through demonstration teaching, where pre-service teachers apply diverse teaching methods and technologies in simulated and real classroom contexts. It includes the preparation of instructional outcomes, selection of appropriate teaching and assessment strategies, and development of corresponding instructional resources. Grounded in the futures of education, the course promotes creativity, critical thinking, and reflective practice to improve learning outcomes. At the end of the course, pre-service teachers design and deliver instructional plans that integrate project-based and community-based initiatives promoting civic engagement and social responsibility.

B.9 Bachelor of Education Major in VALUES EDUCATION

Course Title	Foundations of Values Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with philosophical and theoretical foundations in values education and applies value principles in addressing evaluative problems, such as moral, ethical, and practical dilemmas. It is structured around foundational concepts and approaches for solving values-related issues in educational contexts. Through targeted activities and assignments, learners will connect these foundations to the teaching of moral reasoning, ethical decision-making, and critical thinking about values and evaluative concerns. Emphasis is placed on fostering personal and social responsibility, cultural sensitivity, inclusivity, character strengths, and virtues. Instructional materials include texts, media, interdisciplinary readings, and multimedia resources. Assessment methods encompass formative and summative evaluations, class participation, and peer feedback. By the end of the course, learners are expected to analyze and propose solutions to evaluative problems. As a culminating requirement, each learner will develop a Philosophy Statement that articulates their personal and teaching philosophy to guide their professional practice and career progression in values education.

Course Title	The Science of Values Learning and Theories of Moral Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with a comprehensive understanding of foundational theories related to moral development and values formation. By studying key psychological, sociological, and philosophical frameworks, learners will learn how

	individuals and societies acquire and internalize values. Through critical analysis, learners will explore how personal and societal values evolve across different contexts and time periods. Additionally, the course will prepare learners to apply these moral development theories to real-life ethical dilemmas, fostering thoughtful and values-based decision-making essential for their future roles as educators. The course will equip learners with a thorough understanding of the Science of Values Learning and Theories of Moral Development. The course is designed to provide a comprehensive, interdisciplinary exploration of how values are learned and how moral development unfolds across the lifespan. Instruction will be delivered through a combination of lectures, multimedia presentations, and interactive discussions, creating an engaging and reflective learning environment. Assessment methods will include quizzes to check understanding of key concepts and reflective journals to encourage personal integration of moral theories. At the end of the course, learners will write a case study analysis on a real-life ethical dilemma.
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Course Title	Filipino Culture, Society, and Values System
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course enables the student to engage in a comprehensive and critical examination of the culture, society, and values that shape Filipino identity and character. The course covers the following themes: (1) foundations of Filipino values; (2) historical influences; (3) pakikisama (getting along), utang na loob (debt of gratitude), and kapwa (shared identity); (4) values in action in the family and community; (5) values Filipinos must be known for, (e.g., intellectual values), society, and national identity; and (6) national issues and globalization. Activities and assignments include, but are not limited to, case study analysis, oral history project, values mapping, and cultural immersion projects. Materials include, but are not limited to, required readings, multimedia resources, and guest speakers. Assessments include, but are not limited to, short quizzes, history projects, reflection papers, and class participation. At the end of the course, the students are expected to turn out a term paper showcasing an analysis of a specific aspect of Filipino culture, society, or value system, and how it shapes the Filipino identity and character.

Course Title	Worldviews on Spirituality and Belief Systems
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces Pre-service teachers to the role of worldviews on spirituality and belief systems in shaping identity, values, relationships, and education in both the Philippine and global context. It provides a deeper understanding of the nature and forms of spirituality in personal and communal life, the relevance of diverse religious, philosophical, indigenous, and secular worldviews to human formation, ethical choices, and cultural responsiveness. The course also promotes reflective practice that strengthens self-awareness and social responsibility, while nurturing an inclusive outlook that respects and values diverse traditions. It examines major religions, philosophical traditions, indigenous beliefs, and contemporary worldviews, while exploring how spiritual practices shape values, relationships, and identity. Emphasizing interfaith and intercultural dialogue, the course connects these perspectives to Filipino identity, inclusivity, and social transformation. The course uses reflective and participatory methods such as dialogues, journaling, case studies, and community engagement to deepen understanding of

	spirituality, belief systems, and worldviews. Learning activities include quizzes, essays, group presentations, and active class participation. For the major output, students will submit a Comparative Worldview Analysis.
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Course Title	Sustainability and Ecological Ethics
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an overview of various perspectives on sustainability and ecological ethics, with an emphasis on issues related to sustainable development and emerging technologies that have a profound effect on ecological systems. Through critical analysis of ethical theories and real-world cases, learners will learn to navigate complex environmental dilemmas and craft responsible, justice-oriented solutions. The course introduces the philosophical foundations and practical applications of sustainability and the ethical frameworks that guide human interactions with the environment. It also provides a comprehensive exploration of the history and foundational principles of environmental stewardship, tracing key developments from classical ethics to contemporary ecological philosophies. Central to the course is the study of sustainability frameworks, which offer actionable pathways for ecological resilience and responsible stewardship anchored on Filipino identity and values. Learners will engage in interactive seminars, collaborative debates, and immersive field experiences to apply ethical frameworks to real-world scenarios. By the end of the course, learners are expected to develop and implement a comprehensive sustainability and ecological ethics action plan tailored to a specific community, organization, or ecosystem.

Course Title	Facilitation Skills and Group Process Techniques
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares pre-service teachers to facilitate group processes and collaborative learning environments effectively. It emphasizes reflective, compassionate, and values-driven facilitation that promotes dignity, inclusion, sustainability, social justice, and ethical practice in diverse educational settings. This course covers the theories and applications of group process techniques in education, with a strong focus on fostering collaborative and values-oriented learning environments. It examines the theories, principles, and dynamics of group facilitation while addressing ethical concerns and challenges that may arise in the process. Learners will develop essential facilitation skills and techniques, grounded in reflective, compassionate, and values-driven leadership. Learners will engage in experiential activities such as role-playing, simulation of group processes, and facilitation of groups. Assignments will include reflective essays, facilitation plans, and peer feedback exercises. Assessment will focus on demonstrated facilitation skills, leadership in group dynamics, and ethical decision-making in facilitation. At the end of the course, learners will design and demonstrate an inclusive, technology-enhanced, and learner-centered facilitation plan and learning materials that consider learners' contexts and promote holistic development that will be integrated in their portfolio.

Course Title	Principles and Methods in Teaching Values Education
Course Credits	3 units
Contact Hours	51-54 hours

Prerequisite/s	
Description	The course provides a comprehensive discussion of evidence-based approaches and strategies for planning, implementing, and managing effective learning experiences for Values Education. Emphasis will be on the relationship between educational theory and the development of practical teaching approaches to and strategies for teaching Values Education. Effective instruction is guided by well-established pedagogical principles and employs a variety of methods that engage both the cognitive and affective domains of learning. Teaching skills in applying a particular approach/strategy in a values lesson are expected to be developed in this course. The content of the course includes the major approaches to teaching Values Education. Creative strategies under each approach will be discussed and critically examined for their appropriateness in a specific values education topic. The learners will utilize different approaches and strategies in teaching values lessons as part of their teaching practice. Instruction should be integrated with real-life experiences, allowing learners to connect values with personal and social contexts. The use of a participatory/dialogical approach and experiential process through the art of facilitation is an essential teaching skill for Values Education. Students are expected to conduct demonstration teaching on a chosen topic in Values Education using different teaching modalities.

Course Title	Values Education Curriculum for Future-ready Learners
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course provides pre-service teachers with a deep understanding of the framework, theoretical foundations, standards, and pedagogical approaches of the GMRC and Values Education Curriculum in Basic and Higher Education. The course will hone mastery of skills in unpacking learning competencies in alignment with curriculum standards and values to be developed for future-ready learners. The content of the course includes a deeper understanding of the Basic Education (i.e. Revised K-10 Curriculum/Senior High Curriculum/Higher Education(Bachelor of Education in Values Education Curriculum), its theoretical framework and foundations (legal, philosophical, psychological, moral/spiritual, sociological, environmental), curriculum standards (content/performance standards for basic education and PSGs for Higher Education), learning competencies, and the value content and pedagogical approaches in teaching values. The course focuses on unpacking the learning competencies in alignment with curriculum standards and values to be developed for critiquing and learners' mastery. The critiquing and evaluation of the curriculum will be the basis for planning and or designing a Values Education curriculum map that can be utilized in developing/designing value education lessons.

Course Title	Technology for Teaching and Learning Values Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course explores the transformative role of Information and Communication Technology (ICT) in enhancing Values Education within the framework of the Revised K to 10 GMRC and VE Curriculum. Emphasizing both technical proficiency and ethical sensitivity, the course prepares students to create meaningful, learner-centered experiences that promote moral development, critical thinking, and responsible digital citizenship. The course provides learners with foundational theories and principles for designing and implementing technology-driven lessons, fosters

	21st-century competencies, and promotes digital pedagogies that support collaborative and values-based learning. It focuses on the application, design, production, utilization, and evaluation of digital and non-digital technologies for teaching and learning values. This course is anchored on the development and implementation of an ICT-integrated, Project-Based Learning Plan aligned with the K to 10 curriculum standards that culminate in the demonstration of the Learning Plan. A key output of the course is the creation of a digital portfolio, which will serve as a comprehensive showcase of the students' instructional design, pedagogical strategies, and reflective practice throughout the course.
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Course Title	Research in Values Education 1
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course provides Pre-service teachers with an understanding of research paradigms, methodologies (both quantitative and qualitative), technologies, and tools, and applies them in evaluating research in Values Education and in preparing a relevant research proposal. An initial phase of the course is a critical review of research literature on the content/issues, philosophy, and pedagogy of Values Education, finding the gaps that lead to the identification of the research problem/topic in Values Education and the conceptual framework. The course allows the Pre-service teachers to experience the actual and rigorous research process through fieldwork, utilizing an appropriate research method (quantitative, qualitative, or mixed method) for data collection. The course utilizes hands-on activities, and learners will experience the research process step-by-step, with each phase requiring an expected output such as a literature map, ethics clearance, and tools/instruments for data collection appropriate for quantitative and qualitative research. A research proposal for presentation in a panel is the main output of the course.

Course Title	Contemporary Moral Issues
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an in-depth analysis of contemporary moral issues in the local and global contexts from the perspective of values education. It underscores the use of critical thinking skills to reach moral and reasonable judgments on key personal and societal issues. This course enables students to critically evaluate contemporary moral issues related to personal, social, political, economic, environmental, and technological dimensions of human life. The course employs a case-study approach in which students analyze real-life scenarios, ranging from personal issues such as mental health to global issues such as war and famine, from a values-education perspective. Analysis is done either in small groups or as a class. Analysis papers on pre-selected cases are assigned at designated times. A completed case study report will be submitted at the end of the course, in which the student will analyze a chosen moral issue and recommend how values education can help resolve it.

Course Title	Critical Literacy and Dialogic Thinking for Peace and Transformative Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Filipino Culture, Society, and Values System
Description	This course examines the role of critical literacy and dialogic

	inquiry as catalysts for social transformation, peace-building, and values formation for active civic participation. Anchored on Filipino identity and moral-ethical frameworks, the course equips pre-service teachers with the skills to deconstruct power dynamics in educational texts and contexts, and craft resolutions to complex issues related to peace, conflict/dispute, controversies, and the competing values of diverse interest groups. It moves beyond passive values transmission toward critical literacy—the ability to identify power structures in texts—and dialogic thinking, using the Community of Inquiry (COI) to build a culture of peace and restorative justice. Pre-service teachers will actively participate in experiential learning discussions and activities that develop a critical mindset, collaborative engagement, and the acquisition of transformative pedagogies. These competencies enable them to become active contributors to their communities, promoting positive change through informed thought, action, and advocacy. Assessment includes critical analysis of textual, media, and other conflicting issues in education and society; developing lesson plans that utilize critical inquiry and dialogic thinking to address social issues (e.g., discrimination, conflict); facilitating a Community of Inquiry (COI); and creating a “Transformative Action Plan,” proposing a specific dialogue-based program for a partner community or school.
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Course Title	Assessment and Evaluation in Values Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Principles and Methods of Teaching Values Education
Description	The course enhances the pre-service teachers' skills in understanding and developing appropriate cognitive-based, performance-based, and non-cognitive methods and strategies in assessing and evaluating students' learning outcomes in Values Education. The course discusses the difference between assessment and evaluation, understands the principles/classification of assessment, and guides the learners to develop assessment and evaluation tools for Values Education according to the context-appropriate needs of the learners. Writing a table of specifications and rubric development will also be discussed in this course. The course is designed to assess the actual use of assessment tools in Values Education and make a critical analysis of the items developed according to the table of specifications. The process of presenting-critiquing-revising items for each classification will be utilized to hone the skills in developing assessment items, particularly in measuring the non-cognitive outcomes. At the end of the course, the learners are expected to develop, design, and administer tools for assessment and evaluation in Values Education according to their classification. All outputs will be showcased in a digital portfolio on Assessment of Values.

Course Title	Reflective Practice and Ethical Leadership in Values Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course focuses on ethical leadership theories and concepts, and on reflective practice in values education. It explores the foundational principles of values education and the philosophical and interdisciplinary grounding, as well as the cultural, intercultural, social, and experiential contexts that shape and direct the professional and leadership roles in the field. It aims to help pre-service teachers develop their personal ethics and reflect on their values, beliefs, and biases. It also aims to equip pre-service teachers with the necessary skills to promote ethical reasoning.

	empathy, and social responsibility in their respective communities. It explores ethical leadership through reflective inquiry, applying models and frameworks to real-life decisions and actions. pre-service teachers will engage in collaborative discussions of relevant topics and reflective journals that will help them think about and reflect on personal experiences related to the course topics. They will also analyze real-world ethical dilemmas in educational settings, applying different ethical theories to propose solutions. They are expected to create a Personal Values Statement that encourages self-awareness and serves as a foundational document for their professional work. At the end of the course, pre-service teachers will design values-based community programs, allowing them to integrate their reflective practice and ethical leadership.
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Course Title	Development of Instructional Materials in Values Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Principles and Methods of Teaching Values Education Technology for Teaching and Learning Values Education
Description	The course focuses on the design, evaluation, production, and utilization of printed/modular or ICT materials for teaching and learning in Values Education. Pre-service teachers will learn how to design instructional materials using a modular approach and effectively integrate context-appropriate technology, as well as culturally responsive, learner-centered, and equity-focused strategies, to make values instruction more engaging, interactive, and relevant for future-ready learners. Emphasis is placed on designing digital learning activities, utilizing online platforms, and applying educational technology tools to enhance educational experiences and learning outcomes. Key topics include: 1) Module Development, 2) Designing multi-media learning resources for values education, 3) online and blended strategies for teaching character/values education. The course applies the key topics using a modular approach, identifying/deciding on an instructional model to be used in the development of the instructional material. At the end of the course, the pre-service teachers will be able to develop a learning resource package in teaching Character/Values Education, integrating educational technology tools and digital learning activities.

Course Title	Research in Values Education 2
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Research in Values Education 1
Description	The course enhances the Pre-service teachers' research knowledge and skills in the actual conduct of their collaborative group or independent research, leading to the production of a thesis in Values Education. Phase 1 of the course is the review of the research proposal developed in Research 1, including the updating of research literature. Phase 2 is the actual conduct of fieldwork, implementing either quantitative or qualitative methodologies in collecting data as planned in the study and analyzing the data manually or using software (e.g. SPSS or Jamovi for quantitative and NVivo for qualitative). Phase 3 is the writing of the research report following the institution's research guidelines. The research report can be done by an individual or through collaborative groups. The major output of this course is a scholarly research that must be defended orally in class with invited panelists/specialists, presented in the college/university research forum, or published in a refereed journal.

Course Title	Values Education Beyond the Classroom: School-Community
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	Collaboration
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course develops the capacity of pre-service teachers to extend values education beyond the classroom through active engagement in school-community partnerships, advocacy projects, and sustainability initiatives. It integrates peace education, intercultural understanding, and the application of restorative practices aligned with communitarian, national, and global aspirations. This course highlights the vital role of teachers as facilitators of values-based community building. It presents theories, models, and practices of school-community collaboration as frameworks for peace and values education. Learners explore collaborative strategies for integrating values and peace education into co-curricular and extra-curricular programs, advocacy work, and ecological sustainability projects. They will gain practical skills in planning, implementing, and evaluating school-wide or community-based initiatives that promote shared values and peaceful coexistence. Learners will participate in a community service activity, advocacy campaign, and/or collaborative project. Assignments will include activity/program proposals and documentation of advocacy initiatives. Assessment will be based on project outputs, reflective journals, community engagement reports, and group presentations. By the end of the course, learners will be able to design and implement community service initiatives in partnership with stakeholders, integrating sustainability goals and promoting values development.

Course Title	Islamic Education (Special Topics)
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course examines Islamic Education as a values-based and faith-informed approach to teaching and learning in contemporary educational settings. It prepares pre-service teachers to critically analyze the philosophical, spiritual, ethical, and historical foundations of Islamic Education and to apply these foundations in the teaching of Values Education for diverse learners. The course explores core concepts such as Tawhid (belief in one God), Fitrah (natural human disposition), 'Ilm (knowledge), Taqwa (moral and spiritual awareness), 'Adl (justice), and Ihsan (doing what is right with excellence), emphasizing their role in ethical reasoning, character formation, and values development. It examines the historical foundations and contemporary practice of Islamic Education in the Philippines and selected international contexts. The course emphasizes learner-centered strategies that enable pre-service teachers to design inclusive, values-based lesson plans, integrate Islamic values into classroom management and character education, and develop reflective, performance-based, and authentic assessment tools. It also addresses contemporary educational issues such as secularism, identity formation, and modernization, strengthening pre-service teachers' ability to demonstrate ethical judgment, reflective practice, and professional competence. Through reflective learning, instructional planning, simulated teaching experiences, and assessment design, the course equips pre-service teachers to create inclusive, values-oriented learning environments that support the holistic development of learners.

Course Title	Values Integration through Guidance Services (Special Topics)
Course Credits	3 units
Contact Hours	51-54 hours

Prerequisite/s	
Description	This course prepares pre-service teachers to intentionally integrate values education into school guidance services that support learners' holistic development. It emphasizes reflective, compassionate, and values-driven guidance practices that promote dignity, inclusion, learner well-being, social responsibility, and ethical decision-making in diverse educational contexts. The course focuses on the application of values integration across various guidance services such as homeroom guidance, counseling, career guidance, and psychoeducational activities, highlighting their role in fostering positive behavior, character formation, and supportive school environments. Learners will engage in experiential and practice-based activities, including case analysis, role-playing of guidance situations, and the design of values-integrated guidance plans. Assignments will include reflective journals, guidance activity designs, program proposals, and peer feedback exercises. Assessment will focus on demonstrated competence in planning, implementing, and evaluating values-integrated guidance activities, ethical and professional conduct in guidance-related situations, and responsiveness to learners' contexts. By the end of the course, learners will develop and implement a learner-centered, inclusive, and context-responsive guidance plan and materials that integrate core values and contribute to holistic learner development.

Course Title	Values Education in the Age of Artificial Intelligence (Special Topics)
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course allows pre-service teachers to explore how values can be taught, learned, understood and practiced in a time when Artificial Intelligence (AI) is increasingly gaining influence in daily life. As AI technologies affect decision-making, communication, learning, and social relationships, pre-service teachers are challenged to critically examine values such as integrity, empathy, responsibility, justice, and respect vis-à-vis the ethical, cultural, and moral implications of AI on individuals and societies. Through interdisciplinary perspectives drawing from philosophy, ethics, education, technology studies, and social sciences, the course encourages in-depth reflection on what it means to be human in the age of AI. The course involves individual and interactive learning methods such as journaling, case study analysis, group dialogue or debate, and creative values project that looks into real-world and hypothetical scenarios involving AI in education, media, governance, and the workplace, focusing on issues of bias, privacy, accountability, and human dignity. The course emphasizes reflective practice, dialogue, and values-based decision-making. By the end of the course, pre-service teachers will propose a values-based AI advocacy project that will promote responsible engagement with AI technologies, articulate informed ethical positions, and contribute to a future where technological advancement aligns with deeply held values and the common good.

B.10 Bachelor of Education Major in ARTS AND CULTURE EDUCATION

Course Title	Foundations of Arts and Culture Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces pre-service teachers to the fundamental concepts, frameworks, and methods that inform artistic and

	cultural practices in policy, and ethics, alongside the use of digital tools for documenting and traditional and contemporary societies. It emphasizes Filipino history, heritage, and artistic traditions while cultivating critical, creative, and reflexive engagement with cultural expressions. By the end of the course, pre-service teachers are prepared to design, implement, and assess culture-based and arts-integrated education that empowers learners and communities. The course examines theories, frameworks, and historical roots of artistic expressions embedded in Filipino heritage and indigenous knowledge systems. It explores traditional and contemporary cultural expressions across music, dance, theater, and visual arts. Attention is also given to contemporary issues such as globalization, sustainability, cultural teaching the arts. Pre-service teachers are expected to engage in theoretical explorations and critical discussions, requiring them to analyze artistic and cultural practices in both traditional and contemporary contexts and to articulate their educational implications. At the end of the course, pre-service teachers are expected to demonstrate a comprehensive understanding of arts and culture education and propose integrative and responsive applications suited to diverse learners and communities.
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Course Title	Technology for Teaching and Learning in Arts and Culture Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course introduces pre-service teachers to the integration of ICT in the teaching and learning of drama, music, dance, and visual arts through practical exploration of the various multimedia instructional tools for use in arts and culture education. It covers the principles and practices of technology integration, the management of educational technology, the design and production of educational technologies for arts and culture education, the development, implementation, and testing of media projects, and the demonstration and evaluation of EdTech solutions. The course engages pre-service teachers in interactive lecture-discussions, with hands-on learning on educational technology management. At the end of the semester, the pre-service teachers design, develop, and test multimedia projects and instructional materials in the teaching of the various arts disciplines.

Course Title	Teaching General Music for Children
Course Credits	3 units
Contact Hours	51-54 hours
Recommended Prerequisite skill/s*	Basic musicianship (aural/oral skills, functional music instrumental accompaniment skills, basic music literacy in sheet and/or cipher notation)
Prerequisite course/s	Foundations of Teaching and Learning [Prof Ed]
Description	The course prepares pre-service teachers to plan and implement general music lessons in the elementary school through music and movement, instrumental ensembles, and vocal performances, demonstrating local, Western, and indigenous methodologies, and highlighting learner-centered, collaborative, inquiry-based, and reflective pedagogical processes as a performance standard. The course content covers introductory experiential learning on sound properties and musical elements, basic singing strategies, age-appropriate and culturally responsive instrument-playing approaches for elementary grades, methods for improvisation, sound co-creation for elementary music learning, and inclusive assessment for music learning. Course design includes music experiential workshops such as singing or chanting, music and movement, playing local and indigenous musical instruments,

	improvising accompaniment from sheet music, improvising music from found objects, music technology composition, observing music lessons, planning music lessons, and constructing music performance rubrics.
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Course Title	Teaching Visual Arts for Children
Course Credits	3 units
Recommended Prerequisite skill/s*	Instructional planning: designing learning assessment; basic drawing
Contact Hours	51-54 hours
Prerequisite course/s	Foundations of Teaching and Learning [Prof Ed]
Description	This course introduces relevant content knowledge and approaches for teaching visual arts in the elementary grades. Pre-service teachers should be able to plan and deliver developmentally appropriate visual arts instruction, focusing on early childhood, and Grades 4 to 6. Furthermore, they will use indigenous art forms, local materials, and contextualized strategies that foster creativity, cultural appreciation, and learner engagement. The course includes analysis of the K to 12 Music and Arts curriculum, child-centered pedagogies, classroom management, and assessment techniques. It emphasizes the integration of Philippine cultural elements and interdisciplinary themes in designing visual arts instruction. Strategies and learning evaluation employ learner-centered and authentic approaches. Pre-service teachers will analyze the curriculum, design culturally responsive and inclusive instructional plans and materials, integrate digital art, engage in classroom simulations and case studies, and create artworks and instructional materials using local resources.

Course Title	Teaching Dance for Children
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Teaching and Learning [Prof Ed]
Description	The course prepares pre-service teachers to plan and implement creative and developmental dance lessons in the elementary school, integrating movement exploration, rhythmic activities, improvisation, and simple choreography. It emphasizes the use of local, folk, indigenous, and contemporary dance forms as pedagogical tools to foster body awareness, creativity, social interaction, and cultural appreciation. The course highlights learner-centered, collaborative, inquiry-based, and reflective pedagogical processes as performance standards in teaching dance. The course content includes introductory experiential learning on body movement elements, space, time, energy, and relationship, basic locomotor and non-locomotor skills, rhythm and movement integration, creative movement activities for children, and culturally responsive strategies for facilitating dance learning experiences in the elementary grades. It also introduces inclusive assessment tools for evaluating dance participation, creativity, and performance. The course design incorporates dance experiential workshops such as creative movement improvisation, folk and indigenous dance participation, movement storytelling, dance and music integration, use of props and found objects in movement creation, dance technology exploration, observation of dance classes, lesson planning for dance instruction, and construction of performance rubrics for dance activities.

Course Title	Teaching Theater for Children
Course Credits	3 units
Contact Hours	51-54 hours

Prerequisite/s	Foundations of Teaching and Learning [Prof Ed]
Description	The course prepares pre-service teachers to teach theater for children using the basic principles and practices of theatrical performance. Pre-service teachers use storytelling as a pedagogical tool to engage in developmentally appropriate theater exercises that showcase foundational skills in acting, movement, improvisation, pantomime, and story dramatization that is fit for children. They critically analyze scripts that are suitable for young audiences and engage in discussions on the history of Philippine children's theater. Course design includes basic theater games and exercises, movement-based explorations, researching local children's stories, storytelling sessions, writing 10-minute plays, story dramatization, and staging classroom plays. At the end of the course, the pre-service teachers write, mount, and stage a children's theater while at the same time learning the pedagogical practice of teaching theater for children.

Course Title	Perspectives in Arts and Heritage Education in Plural Societies: The Philippine Setting
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Arts and Culture Education
Description	The course focuses on the models and frameworks of arts and heritage education in plural societies, including the Philippines, and compares relevant policies, implemented educational programs, and strategic pedagogical approaches. It provides pre-service teachers with opportunities to compare various models of arts and heritage education from plural societies such as the Philippines in relation to Southeast Asia (i.e. Singapore), North America (US, Canada), and Australia, in terms of rationale (cultural pluralism, identity, social cohesion, social justice), policies (arts and heritage conservation and preservation), formal, non-formal, and informal educational programs (Schools of Living Traditions, indigenous pedagogy, transformative arts pedagogy, culturally responsive and culturally sustaining pedagogy), and strategic approaches (community partnership and empowerment). Pre-service teachers must apply a comparative analysis of arts and heritage education policies, educational programs, and educational approaches from selected case studies. At the end of the course, pre-service teachers are expected to present intervention plans that address arts and heritage education gaps in the community contexts selected from formal/non-formal/informal music education settings.

Course Title	Multicultural Literacies in Arts Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Arts and Culture Education
Description	The course enables pre-service teachers to critically examine current trends, theoretical perspectives, approaches, and issues in the development of multicultural literacies within the context of arts education. It provides a foundation for understanding how cultural diversity, global interdependence, and local artistic traditions shape learners' creative expressions and identities. Through this course, pre-service teachers explore strategies for fostering cultural sensitivity, inclusivity, and appreciation of diverse artistic heritages among elementary and secondary learners. The course emphasizes the design and implementation of instructional plans that integrate multicultural and intercultural perspectives into various art forms, highlighting learner-centered, reflective, and authentic pedagogies. It also examines the role of the arts in promoting social awareness, empathy, and cultural dialogue in classroom settings. Learning experiences include lecture-discussions, creative workshops, instructional design

	activities, cultural mapping, and presentations. Assessment tasks involve reflective journals, article critiques, instructional portfolios, lesson demonstrations, and performance-based evaluations that measure both pedagogical understanding and cultural responsiveness in teaching the arts.
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Course Title	Teaching General Music for the Youth
Course Credits	3 units
Contact Hours	51-54 hours
Recommended Prerequisite skill/s*	Basic musicianship (aural/oral skills, functional music instrumental accompaniment skills, basic music literacy in sheet and/or cipher notation)
Prerequisite course/s	Teaching General Music for Children
Description	The course prepares pre-service teachers to plan and implement general music lessons in the junior high school through world music pedagogy strategies, instrumental ensembles, and vocal performances, demonstrating local, Western, and indigenous methodologies, and highlighting learner-centered, collaborative, inquiry-based, and reflective pedagogical processes as a performance standard. The course content covers an introduction to music appreciation, including the music cultures studied in General Music in Junior High School; singing/chanting strategies; culturally sustaining instrument-playing approaches for junior high school students; sound recording technology; music improvisation and song co-creation; and inclusive assessment for music learning. Course design includes experiential music workshops such as singing or chanting, basic playing on available traditional and Western musical instruments, improvising accompaniment from sheet music, improvising with traditional and improvised musical instruments, music technology recording and composition, observing music lessons, planning music lessons, and constructing music performance rubrics.

Course Title	Teaching Visual Arts for the Youth
Course Credits	3 units
Contact Hours	51-54 hours
Recommended Prerequisite skill/s*	Instructional planning: designing learning assessment; basic drawing
Prerequisite course/s	Teaching Visual Arts for Children
Description	This course presents the bases, principles, approaches, content, and processes needed for teaching visual arts in junior high school. Pre-service teachers will be able to design and implement inclusive, culturally responsive visual arts instruction for Grades 7 to 10. They will integrate contemporary, emerging, and digital art forms into lessons that support adolescent development, identity formation, cultural appreciation, and social engagement. The course covers culturally responsive and inclusive instructional design and materials development for high school students, the K to 12 Music and Arts junior high school curriculum, and relevant artistic concepts and practices, and interdisciplinary themes on contemporary and emerging visual arts in the Philippines and the world. Strategies and learning evaluation employ learner-centered, performance-based, and authentic approaches. Pre-service teachers will analyze the curriculum, design culturally responsive and inclusive instructional plans and materials, integrate digital art, engage in classroom simulations and case studies, and create artworks and instructional materials using local resources.

Course Title	Teaching Dance for the Youth
Course Credits	3 units

Contact Hours	51-54 hours
Prerequisite/s	Teaching Dance for Children
Description	This course prepares pre-service teachers to plan and implement dance learning experiences for junior high school learners that develop body awareness, creativity, cultural appreciation, and self-expression. It enables them to design and facilitate movement activities and choreographic projects grounded in Philippine, Asian, and global cultural contexts, promoting appreciation of both local and regional festivals and dances. The course highlights learner-centered, collaborative, inquiry-based, and reflective pedagogical processes as performance standards in teaching dance to youth learners. The course content covers experiential learning on the elements of dance through creative, folk, social, and contemporary forms suited to adolescent development. It integrates movement improvisation, choreography for advocacy, and intercultural comparison of Philippine, Asian, and global festival dances. It also addresses inclusive, authentic, and performance-based assessment in dance learning. Course design includes experiential workshops such as movement exploration, creative choreography, folk and festival dance participation, dance improvisation, cultural mapping, intercultural dance comparison, lesson planning and demonstration, and construction of performance rubrics for assessing youth dance performances. By the end of the course, pre-service teachers are expected to design developmentally appropriate, culturally grounded, and globally informed dance learning experiences that respond to the needs of junior high school learners.

Course Title	Teaching Theater for the Youth
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Teaching Theater for Children
Description	The course equips pre-service teachers to teach theater for the youth using the application of basic principles and processes of theater creation, and foundational knowledge in Philippine theater form and history that is appropriate for Key Stage 3 students. Pre-service teachers explore basic acting, directing, creative movements, voice exercises and techniques, story analysis, production design and management, and technical theater practices fit for secondary students. Course design includes intermediate theater games and exercises, improvisation techniques, movement exploration using local stories, and writing and staging of original short plays based on community stories. At the end of the course, the pre-service teachers produce short plays and apply strategies in teaching theater for the youth.

Course Title	Integrative Arts Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Teaching General Music for the Youth; Teaching Visual Arts for the Youth; Teaching Dance for the Youth; Teaching Theater for the Youth
Description	This course presents interdisciplinary and community-based applications of arts education within the Philippine basic education system. Pre-service teachers will be able to design and implement interdisciplinary, culturally responsive, and community-based arts education programs. They will integrate various art forms into formal and non-formal learning environments, utilizing participatory and inclusive approaches that foster cultural identity and social transformation. The course deals with the integration of visual arts, music, dance, theater, and media arts in basic and community education. It emphasizes indigenous knowledge systems, contextualized instruction, and the role of the arts in promoting

	lifelong learning, empowerment, and social inclusion. Strategies and learning evaluation employ learner-centered, performance-based, and authentic approaches. Pre-service teachers will design culturally responsive and inclusive integrative instructional plans, facilitate a community arts workshop, and participate in collaborative art-making.
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Course Title	Teaching Music in Specialized Programs
Course Credits	3 units
Contact Hours	51-54 hours
Recommended Prerequisite skill/s*	Intermediate musicianship (aural/oral skills, intermediate instrumental playing skills, music literacy in grand staff Western notation); Music technology familiarity; Conducting skills
Prerequisite course/s	Teaching General Music for the Youth
Description	Teaching methods in Music for Specialized Programs are enhanced through demonstration skills in music teaching, including applied choral arrangement and conducting, as well as instrumental ensemble performances. Two performances applying principles in choral conducting and instrumental accompaniment serve as a performance standard for assessment. The course content includes pedagogical techniques for teaching musicianship and improvisation (music learning theory), music technology using a digital audio workstation (DAW), conducting and rehearsal management, songwriting, basic instrumental arranging, and the observation of music ensembles (vocal, instrumental, choral, and recording studio). Course design includes music experiential workshops in musicianship (improvising, reading, and writing tonal and rhythmic patterns), instrumental/vocal ensemble performance, simple arranging for voice and/or instruments, observing vocal/instrumental masterclasses, music rehearsals, and recording sessions, planning music coaching sessions, preparing music performance rubrics, and mounting a simple music culminating activity performance.

Course Title	Teaching Visual Arts in Specialized Programs
Course Credits	3 units
Contact Hours	51-54 hours
Recommended Prerequisite skill/s*	Instructional planning: designing learning assessment; basic drawing
Prerequisite course/s	Teaching Visual Arts for the Youth
Description	This course centers on teaching visual arts in Grades 11 and 12, and learners enrolled in the Special Program in the Arts (SPA). Pre-service teachers will be able to mentor senior high school and SPA students in advanced visual arts practices. They will design differentiated instruction and facilitate capstone projects that promote Philippine cultural heritage and prepare learners for creative industry pathways. The course deals with the artistic and creative industry practices relevant to visual arts, including capstone project development, critique and feedback strategies, and differentiated instruction for diverse learners, including talented and gifted learners. It emphasizes the role of visual arts in cultural preservation, artistic excellence, and career readiness. Strategies and learning evaluation employ learner-centered, performance-based, and authentic approaches. Pre-service teachers will design culturally responsive and inclusive instructional plans and materials, engage in case studies, conduct mentorship simulations, develop portfolios, and participate in exhibition planning.

Course Title	Teaching Dance in Specialized Programs
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Teaching Dance for the Youth
Description	This course prepares pre-service teachers to teach dance in Senior High School and the Special Program in the Arts (SPA). The course covers advanced studies and training in dance fundamentals and techniques, choreography, dance performance, criticism, and creative production, emphasizing their application to Senior High School and SPA settings. Pre-service teachers examine intercultural sensitivity, safety protocols, and the relevant laws and policies governing the creative industries as they relate to dance education and practice. The integration of dance with other art forms such as music, visual arts, and theater is highlighted, alongside the role of dance in contemporary cultural and creative industries. Pre-service teachers are expected to undertake advanced training in dance techniques as part of their critical exploration of choreography, criticism, and creative industry practices. The course requires them to deepen their mastery of movement vocabulary and performance skills while examining how these can be effectively translated into Senior High School and SPA pedagogy. At the end of the course, pre-service teachers are expected to demonstrate their ability to design advanced instructional plans that integrate technical training, choreographic innovation, and culturally grounded approaches to prepare learners for academic engagement and participation in the creative industries.

Course Title	Teaching Theater in Specialized Programs
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Teaching Theater for the Youth
Description	The course introduces the foundations of devised theater, practices of collaborative ensemble creation, sourcing materials for devising, creative methods and techniques, development and writing of original scripts, critical reflection of the devised piece, and production management. Course design includes creative and collaborative exercises, theater improvisations, soundscape and music explorations, design experimentations, writing exercises, and analyzing Philippine contemporary theater forms and practices. At the end of the course, the pre-service teachers acquire skills in devising original theater works and the pedagogical approaches in teaching devised theater.

Course Title	Artistic Practice as Research
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Learner-Centered Teaching [Prof Ed]; Foundations of Arts and Culture Education
Description	This course introduces pre-service teachers to the foundational principles and methodologies of research in arts and culture. It covers both conventional research techniques and creative-practice methods, equipping learners to investigate, document, and express ideas relevant to arts education. Pre-service teachers will develop research projects or creative works rooted in cultural inquiry and guided by academic or artistic frameworks. Emphasis is placed on ethical awareness, reflective thinking, and the ability to articulate and defend research outcomes. Through critical exploration and creative engagement, pre-service teachers gain a deeper understanding of how research contributes to cultural discourse and educational practice. It emphasizes artistic practice as research through the application and process of inquiry, ethics, cultural sensitivity, and reflection, culminating in a research paper or creative output focused on arts

	and culture. Pre-service teachers will strengthen both academic and artistic research skills through a range of activities, including writing assignments, creative projects, field works, interview and observations, peer critiques, mentoring sessions, ethics workshops, case study analysis, and final presentations before a panel.
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B.11 Bachelor of Education Major in PHYSICAL AND HEALTH EDUCATION

B.11.a Foundation Courses

Course Title	Historical and Philosophical Foundations of Physical and Health Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course introduces pre-service teachers to various individuals, organizations, movements, and structures that contribute to the formation of Physical and Health Education (PHEd) across time and space. Pre-service teachers will critically examine the impact of societal values, political systems, and significant historical events on their personal and professional philosophy of PHEd. A core objective is to develop critical thinking and reflective practice. Furthermore, pre-service teachers will gain awareness of existing laws, policies, and regulations that apply to the teaching profession and PHEd practice. The course emphasizes active class discussions and the examination of historical documents and contemporary issues. Authentic assessment culminates in the development of a comprehensive personal portfolio, which includes the pre-service teacher's refined professional philosophy and evidence of behavioral qualities such as a caring attitude, respect, and integrity.

Course Title	Biophysical Aspects of Physical and Health Education 1 (Functional Anatomy and Exercise Biomechanics)
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course offers an integrated understanding of human movement, combining the roles of the musculoskeletal and nervous systems with the principles of force and motion. In this course, pre-service teachers will analyze how the musculoskeletal system interacts with the nervous system to produce coordinated and efficient movement; investigate how the central and peripheral nervous systems control and coordinate muscles, reflexes, and sensory feedback to ensure movement is executed correctly and safely; and analyze movement using mechanical principles in kinematics (position, velocity and acceleration of body segments) and kinetics (force and torques that cause or influence the motion). Instruction emphasizes active, observable practice through laboratory activities, movement simulations, peer teaching and performance demonstrations. This will enable pre-service teachers to recognize common movement flaws in fundamental movement skills and patterns, and provide evidence-based, actionable feedback using correct terminology to ensure movement efficiency and safety. Assessment focuses on these applied skills via movement analysis projects (corrective planning for filmed skills), verbal feedback evaluations (teaching effectiveness), and research critique papers to ensure pedagogical practice is informed by sound evidence. ICT integration is woven into the content, focusing on using technology for recording/filming, analysis,

	interpretation, and knowledge curation.
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Course Title	Biophysical Aspects of Physical and Health Education 2 (Functional Anatomy and Physiology of Health and Exercise)
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Biophysical Aspects of Physical and Health Education 1 (Functional Anatomy and Exercise Biomechanics)
Description	This course offers integrated understanding of how the body's structure enables it to move purposefully and efficiently, linking it to how the bodily systems respond to physical activity and are impacted in the long-term. Pre-service teachers will deconstruct the mechanics of movement and analyze how the interplay of the cardiorespiratory, neuromuscular and metabolic energy systems drives chronic structural adaptations over time. They will conduct and interpret physiological assessments to determine individual fitness and health profiles, using that data to design tailored exercise programs. They will also analyze energy balance to design practical healthy eating plans and exercise plans for healthy body composition in diverse populations. Instruction emphasizes hands-on laboratory sessions on assessments of key physiological parameters, case studies, and collaborative activities to design tailored exercise, fitness and health promotion programs. Written and performance-based assessments are designed to evaluate pre-service teachers' understanding and application of key concepts in energy systems and metabolism, cardiorespiratory, musculoskeletal and neuromuscular systems' response and adaptations to exercise, and the improvement and maintenance of health.

Course Title	Human Behavior and Health (Individual, Social, and Cultural Factors Influencing Health Behaviors)
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers to critically analyze the complex psychosocial and socio-environmental factors that shape student health and well-being. They apply key theoretical frameworks to understand how individual characteristics (such as self-esteem and motivation) and systemic factors (including schools, policy, and culture) intersect with Physical and Health Education. The course covers micro-level concepts, such as motivation, self-perceptions, body image, and behavioral change models. It then expands to macro-level influences, exploring how schools, communities, social groups, and policies create the socio-environmental context for health. The course utilizes interactive lectures, multimedia resources, problem-based learning, and small-group discussions, applying theoretical models to local health issues. Assessments include written assignments connecting theory to real-life examples, community health surveys, quizzes, participation, and a final capstone project focused on designing a program or intervention to address a local socio-behavioral health issue.

Course Title	Motor Learning and Development
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares pre-service teachers to make evidence-informed teaching decisions by integrating motor development across the lifespan with motor learning theories. Learning is situated in movement, dance, games, and fitness concepts, where pre-service teachers examine how fundamental

	movement skills are acquired and refined to meet purposeful outcomes (e.g., expression, play, performance, competition, and health-enhancing activity) and translate these insights into sound teaching decisions. Pre-service teachers design inclusive, developmentally appropriate, and culturally responsive instruction and use authentic, evidence-based assessments to document progress, provide feedback, and strengthen learning experiences that advance physical literacy and lifelong wellness.
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Course Title	Teaching Physical and Health Literacy
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course enables pre-service teachers to develop physically and health literate individuals. Pre-service teachers employ effective strategies in fostering movement competence and confidence across diverse physical activities. Furthermore, they will teach learners how to access, understand, appraise, and use health information to make informed decisions and take appropriate health actions. The course promotes personal growth and professional development, requiring pre-service teachers to reflectively set goals, manage their own professional learning, and continually refine their pedagogical approach for diverse learners. The content covers the pedagogy of movement skill acquisition and the development of critical health literacy, focusing on communication, the individual's ability to process complex health data, and the practical challenges of accessing reliable information, including online and digital forms, from various individuals and organizations. Instruction integrates practical and theoretical approaches, utilizing reading, assessing information, and discussing current issues. Assessment strategies include a mix of written assignments, presentations, and collaborative activities to evaluate the application of health information skills and the design of effective, inclusive physical activity strategies for diverse learners. It will also include a reflective journal or portfolio section dedicated to tracking personal growth, setting professional development goals, and analyzing their evolving teaching philosophy.

Course Title	Research in Physical and Health Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Historical and Philosophical Foundations of Physical and Health Education; Biophysical Aspects of Physical and Health Education 1 (Functional Anatomy and Exercise Biomechanics); Biophysical Aspects of Physical and Health Education 2 (Functional Anatomy and Physiology of Health and Exercise); Human Behavior and Health (Individual, Social, and Cultural Factors Influencing Health Behaviors); Motor Learning and Development; Teaching Physical and Health Literacy
Description	The course introduces the foundational concepts and methodologies used to investigate teaching and practice in Physical and Health Education. Pre-service teachers critically evaluate published research findings, understand the ethical responsibilities of researchers, and apply evidence-based knowledge to enhance their future teaching effectiveness and promote healthy behaviors in diverse educational settings, as assessed through a portfolio. Key topics cover the principles of problem identification, conducting a comprehensive literature review, and navigating ethical considerations in educational research. ICT integration is woven into the content, focusing on using technology for data collection, analysis, interpretation, and

	knowledge curation. Instruction utilizes a blend of lectures, class discussions, and problem-based learning strategies, emphasizing practical exercises in research appraisal and program design.
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B.11.b Content-Driven Pedagogy Courses

I. Sports/Games

Course Title	Game-Based Pedagogy
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares pre-service teachers to use games and game-like activities to enhance learning and engagement in physical activities and health concepts. It emphasizes a learner-centered approach, moving away from traditional drill-based methods. Instead, the focus is on integrating skill development and strategic thinking through active gameplay. Key areas of study include, but are not limited to: (1) game-based approaches; (2) gamification vs. game-based learning; (3) practical application and design. Pre-service teachers will gain hands-on experience in adapting games to meet various developmental needs and in creating inclusive learning environments that encourage participation. By the end of the course, pre-service teachers will be able to design engaging physical education lessons, modify games for different age groups, assess student learning and social skills, and promote a lifelong enjoyment of physical activity while teaching teamwork and fair play.

Course Title	Philippine Traditional Sports and Games
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Game-Based Pedagogy
Description	The course reintroduces Philippine traditional sports and games as a form of physical activity in conjunction with mechanics, rules, and cultural contexts. The course aims for appreciation of Philippine traditional sports and games as a form of intangible cultural heritage (ICH). The course is holistic, combining practical and theoretical instruction to promote cultural appreciation, physical fitness, socialization, and the preservation of Filipino intangible cultural heritage. The course includes discussions and actual play of various Philippine traditional sports and games from all over the Philippines. Combinations of different characteristics of sports and games (e.g., chasing and tagging, games of chance), familiar and unfamiliar ones, and localized variations of sports and games are played in this course. The course emphasizes active participation, improvisation, and the development of core physical skills. Purposeful play, invention and administration of games, and conduct of organized game festivities or palaro are expected at the end of the course. Part of the assessments in this course are game journals, childhood games reflection paper, and invented game administration.

I.a Sports/Games Elective Courses

Course Title	Teaching Invasion and Tag Games
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Game-Based Pedagogy
Description	This course prepares pre-service teachers to develop their future learners' movement competence, fitness, and essential values through the lens of Invasion and Tag Games. The instruction

Course Title	Teaching Invasion and Tag Games
	moves beyond traditional methods to emphasize problem-solving and decision-making crucial for authentic game play. For Invasion Games like basketball or ultimate frisbee, which aim to penetrate the opponent's territory to score a point/goal and prevent the opposition from scoring, the focus is on the application of tactical concepts, namely: teamwork to control the ball, keep and deny possession, create/move into space, support the ball carrier, control the pace, attack and defend. For Tag Games like rugby or flag football, which aim to chase other players to tag them and score a point, the focus is on the application of tactical concepts, namely: chasing, evading, shepherding, and using screens, with the key outcome being the ability to read the opposition. Pre-service teachers master these pedagogical approaches through experiential learning, including lesson design, delivery, feedback and microteaching, with performance assessed via skills demonstration during simulations, unit plans, and a reflective journal.

Course Title	Teaching Net/Wall Games
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Game-Based Pedagogy
Description	This course prepares pre-service teachers to develop their future learners' movement competence, fitness, and essential values through the lens of Net/Wall Games. The instruction moves beyond traditional methods to emphasize problem-solving and decision-making crucial for authentic game play. For Net/Wall Games like volleyball, table tennis, badminton and pickleball, which aim to send an object (e.g., ball, shuttle) over the net and ground it on the opponent's court or place it in an area where it is difficult for the opponent to return the object or are forced into a mistake, the focus is on the application of key game concepts, namely, flight reception, court positioning, ball/shuttle placement, building and defending an attack. Pre-service teachers master these pedagogical approaches through experiential learning, including lesson design, delivery, feedback and microteaching, with performance assessed via skills demonstration during simulations, unit plans and a reflective journal.

Course Title	Teaching Striking/Fielding and Target Games
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Game-Based Pedagogy
Description	This course prepares Physical and Health Education pre-service teachers to design, facilitate, and assess learning experiences that develop learners' physical literacy and fitness while fostering values through striking/fielding and target games (e.g., slow-pitch, syato, archery, tumbang preso). Pre-service teachers will demonstrate the ability to apply movement and fitness concepts, tactical/game principles, and safety considerations to create standards-aligned syllabi and lesson plans, deliver developmentally appropriate instruction, and implement authentic assessments of learning experiences or activities in each Key Stage 1-4. The course emphasizes pedagogical approaches that foster creative thinking, game understanding, and inclusive participation, while intentionally integrating values education through the identification and facilitation of coachable/teachable moments and guided reflection.

Course Title	Individual Performance Activities
Course Credits	3 units
Contact Hours	51-54 hours

Prerequisite/s	Game-Based Pedagogy
Description	The course, encompassing gymnastics, swimming, athletics, and weightlifting, defines the subject matter as foundational to a diverse Physical and Health Education (PHEd) curriculum and develops the movement competency and essential knowledge that pre-service teachers need to confidently instruct learners. The course content focuses on pedagogy, skill acquisition, technique analysis, training principles, and safety protocols, which are vital for PHEd professionals to ensure effective learning and student welfare. By the end of the course, pre-service teachers will deliver teaching demonstrations, engage in task-based practice, participate in peer coaching, and conduct micro-teaching sessions to enhance their instructional skills. Assessment will include performance rubrics to evaluate technical proficiency, written examinations covering physiological and safety content, and a portfolio of self-designed lesson plans.

II. Dances

Course Title	Foundations of Rhythmic Activities and Dance
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the pedagogical skills and fundamental principles necessary to teach rhythmic activities and dance as an integral component of Physical and Health Education. Pre-service teachers will learn to critically analyze the physiological and cultural dimensions of movement and design inclusive, engaging, and developmentally appropriate rhythmic programs for diverse learners. Key learning outcomes include fostering physical literacy, creative expression, musicality, and cultural appreciation in their future learners. The course blends movement theory with intensive practical application of rhythmic techniques. Content explores the cultural and historical context of dance, with a strong emphasis on Philippine folk dances, global traditions, and contemporary forms. Applied topics focus on methods for promoting coordination and rhythm across different age groups and backgrounds. Instruction utilizes a blend of theoretical lectures and active movement labs to connect knowledge with kinesthetic skill. Assessment is practical and performance-based, leveraging required participation in movement creation tasks, small-group projects, and performance-based evaluations.

Course Title	Folk and Cultural Dances
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Rhythmic Activities and Dance
Description	This course explores the vibrant world of folk and cultural dances, with a focus on Philippine and international traditions, ethnic rituals, and festival celebrations. Pre-service teachers will examine the historical, social, and symbolic meanings embedded in movement, music, and costume across diverse cultures. Emphasis is placed on Philippine folk and ethnic dances—including Christian Dances with Western Roots, Dances of the Northern Highlands, Dances of the Muslim South, and Dances of Indigenous Cultural Communities—as well as selected international folk dances and festival dances that reflect global heritage. Through experiential learning, pre-service teachers will develop technical proficiency, cultural sensitivity, and pedagogical competence. This course develops an appreciation for dance as a vital medium of identity, storytelling, and community expression. Through structured discussion, annotation, and interpretation of written materials, combined with writing strategies that strengthen literacy,

	pre-service teachers engage in the analysis of dance symbolism and historical context. The course equips pre-service teachers with the knowledge and skills to integrate folk and cultural dances into inclusive, pedagogically sound, and meaningful physical education programs.
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II.a Dance Elective Courses

Course Title	Social and Ballroom Dances
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Rhythmic Activities and Dance
Description	This course provides pre-service teachers with foundational knowledge and practical skills in social and ballroom dances, emphasizing their cultural, historical, and physical dimensions. Pre-service teachers will explore a variety of dance forms, including the waltz, cha-cha, tango, swing, and foxtrot, while developing rhythm, coordination, posture, and partner dynamics. Through experiential learning, pre-service teachers will engage in movement labs, choreographic tasks, and performance-based assessments that foster physical literacy and social interaction. The course also integrates pedagogical strategies for teaching dance in educational settings, preparing pre-service teachers to promote inclusive and engaging movement experiences.

Course Title	Specialized and Fusion Dances
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Foundations of Rhythmic Activities and Dance
Description	This course explores the evolving landscape of dance through specialized forms and fusion styles that blend traditional, contemporary, and global influences. Pre-service teachers will engage with various dance genres, including hip-hop, jazz, contemporary, street dance, and experimental fusion, while also examining how cultural, technological, and social forces influence movement innovation. Through a combination of technique training, choreographic exploration, and critical reflection, pre-service teachers will develop physical literacy, creative fluency, and pedagogical competence. The course emphasizes interdisciplinary thinking, encouraging pre-service teachers to fuse elements from various dance traditions to create original, expressive works. It prepares pre-service teachers to design inclusive, culturally responsive, and engaging dance experiences for diverse learners.

III. Health

Course Title	Introduction to Holistic Health and Healthy Living
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course offers a comprehensive understanding of holistic health as a foundation for personal wellness. Pre-service teachers will examine how daily health practices, including healthy eating, regular physical activity, sleep hygiene, mental health, stress management, disease prevention, personal safety, sexual health, substance use prevention, and healthy aging, shape long-term well-being. They will critically analyze health issues within global and local contexts, applying diverse health behavior theories, models, and frameworks. As evidence of learning, they will design a personalized wellness plan tailored to their individual health needs and circumstances. Instruction emphasizes experiential learning through case analysis, role play exercises, and

	service-learning, fostering interdisciplinary knowledge and practical application. These activities are authentic and rigorous, requiring both reflective engagement and purposeful action. Written and performance-based assessments are structured to evaluate pre-service teachers' mastery of fundamental concepts and their ability to apply them in promoting healthy living.
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Course Title	Comprehensive School Health Program
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces pre-service teachers to the Comprehensive School Health Program (CSHP), highlighting its role in promoting student health and wellness and building competencies for effective Physical and Health Education delivery. It covers key CSHP components like health education integrated into the current Philippine basic education curriculum, physical education, nutrition, substance abuse prevention, mental health, and community involvement to foster holistic student well-being. The course emphasizes the Whole Child, Whole School, Whole Community (WSCC) approach, including coordinated health education, physical activity, recreational activities, health services, supportive environments, and partnerships aligned with national initiatives such as OPLAN Kalusugan and School Improvement Plans. Teaching methods include deeper learning and skills-based approaches (discussions, peer feedback, school visits, interviews, environmental scanning, and practical health appraisals). It involves authentic assessments (projects, critique papers, and a group service-learning project to develop critical thinking, leadership, and communication skills for applying health promotion principles in real community health settings).

Course Title	Foundations of Nutritional Health and Fitness
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introduction to Holistic Health and Healthy Living
Description	This course equips pre-service teachers with foundational nutrition knowledge and critical skills to support fitness and well-being. It covers essential nutrition concepts, nutrient functions, and the relationship between diet, health, and disease. Practical skills in food selection, preparation, and planning for varied ages and activity levels are emphasized. The course highlights how nutrition boosts physical performance, energy balance, and disease prevention. Guided by the Food and Nutrition Research Institute (FNRI) Nutritional Guidelines for Filipinos and national health initiatives, pre-service teachers engage in in-depth learning discussions, consultations with experts, including projects, service-learning, and a cook-off. Both summative and authentic assessments are used to evaluate knowledge application and promote lifelong healthy lifestyles.

Course Title	Fundamentals of Safety, First Aid, and Emergency Care
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with essential knowledge and practical skills to respond effectively to injuries and emergencies across home, school, and community settings. Core topics include safety principles, first aid fundamentals, management of common injuries, bandaging, basic life support, transport techniques, an introduction to psychological first aid, and appropriate referral to professional help. Learners are guided to critically analyze course competencies, ensuring that safety

	content and emergency procedures are developmentally appropriate and contextually relevant. A central requirement of the course is the design of a comprehensive School Emergency and Disaster Preparedness Plan (SEDPP), outlining management and implementation strategies aligned with national protocols and School Improvement Plans. Instruction integrates diverse teaching methods, such as interactive lectures, multimedia presentations, hands-on practice, expert consultations, collaborative group activities, role-playing exercises, and disaster drills, to foster applied learning and interdisciplinary understanding. Assessment strategies combine summative quizzes and written examinations with performance-based evaluations of practical skills. Authentic scenario-based assessments, complemented by reflective journaling, are employed to monitor learner progress, strengthen decision-making abilities, and cultivate professional readiness in emergency and disaster response.
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Course Title	Consumer Health and Drug Preventive Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Introduction to Holistic Health and Healthy Living
Description	This course empowers pre-service teachers with advanced competencies in consumer health education and preventive drug awareness, equipping them to safeguard student well-being in an increasingly complex media and health landscape. It foregrounds digital health literacy as a foundational skill for cultivating discerning, critically engaged learners capable of navigating misinformation, manipulative advertising, and health-related fraud. Anchored in evidence-based frameworks, the course explores consumer rights, ethical marketing, and the responsible evaluation of health products, services, and technologies. It integrates rigorous analysis of digital health platforms and misinformation trends, preparing pre-service teachers to model and teach responsible consumption and advocacy. Preventive drug education modules address contemporary substance use concerns, including vaping, e-cigarettes, peer pressure, addiction risks, and legal implications through the lens of life skills development and values formation. Instructional strategies include interactive lectures, structured debates, media deconstruction, and expert-led consultations to foster critical thinking and pedagogical application. Assessment emphasizes authentic, practice-based outputs such as consumer critique papers and a culminating service-learning project. Pre-service teachers will conceptualize, design, and implement a digital health awareness campaign tailored for basic education learners, peer groups, and community stakeholders, demonstrating their capacity to lead transformative health education initiatives.

B.11.c Context- Intensive Courses

Course Title	Curriculum and Instructional Models in Physical and Health Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Theories and Approaches in Literacy Education [Prof Ed] Learner-Centered Teaching [Prof Ed] Learner Assessment [Prof Ed]
Description	This course examines the principles of curriculum design and instructional models in Physical and Health Education, emphasizing the relationship between curriculum and instruction and the process of translating intended curriculum into classroom practice. Pre-service teachers will develop skills to unpack curriculum frameworks and design student-centered instructional plans that promote physical literacy, health awareness, and holistic

	development. Topics include pedagogical models, technology integration, and diverse instructional approaches for inclusive learning. Pre-service teachers will learn to create instructional plans aligned with national and international standards and gain a clear understanding of curriculum development, instructional planning, and evaluation processes essential for teaching practice. The course will introduce various instructional methods, including the lecture method, collaborative discussions, problem-based learning, and multimedia presentations. Assessment strategies aligned with program outcomes and performance standards will also be covered. These include written assignments, reflexive journals, presentations, project work, instructional plans, and both practical and written examinations.
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Course Title	Assessment of Learning in Physical and Health Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Learner Assessment [Prof Ed]
Description	This course prepares pre-service teachers to effectively measure and evaluate student learning, ultimately enhancing the quality of Physical and Health Education (PHED) programs. The course emphasizes the importance of data interpretation, enabling pre-service teachers to make informed decisions about curriculum planning and instructional strategies. The course provides pre-service teachers with foundational knowledge and practical skills needed to design and implement effective assessment tools in teaching and learning of diverse learners, and interpret a variety of valid and reliable assessment tools to accurately measure student learning and inform instructional decisions in PHED. This course employs a combination of lecture discussions and a hands-on workshop approach, utilizing a range of eclectic and authentic assessments to evaluate pre-service teachers' understanding and application of test construction and measurement addressed to diverse learners' strengths, needs, backgrounds, interests, and experiences. The course covers principles of test construction, development of various assessment tools, including physical fitness tests, skill performance evaluations, and health knowledge questionnaires. Content includes standardized testing procedures, norm-referenced and criterion-referenced assessments, and the ethical considerations surrounding testing in educational settings. Assessments include designing and implementing assessments, conducting field tests, and analyzing assessment results.

Course Title	Integration of Technology in Physical and Health Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course enables pre-service teachers to demonstrate competency in strategically integrating technology into Physical and Health Education. Objectives include critically evaluating and implementing digital tools to foster holistic development, designing inclusive, technology-mediated instruction, and developing comprehensive assessment strategies for digital wellness outcomes. The course explores the pedagogical applications of cutting-edge technologies, including wearable technology, apps and software, and AI-enhanced tools, to improve student engagement, movement competency, and health literacy. Content emphasizes cross-disciplinary integration across learning areas, addressing the needs of diverse learners and critically examining digital equity issues within the local and global educational contexts. The course employs a design-based learning framework structured across four developmental phases, culminating in innovation and reflective practice. Pedagogical methods include

	hands-on technology exploration, collaborative design projects using authentic basic education scenarios, and peer teaching demonstrations with digital tools. Assessment is portfolio-based, prioritizing practical application through the development of technology-enhanced lesson plans, cross-disciplinary unit designs, and reflective analyses of implementation experiences.
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Annex C

Description of General Education Course Themes % CHED

Annex D

Description of Mandated Courses % CHED

Annex E

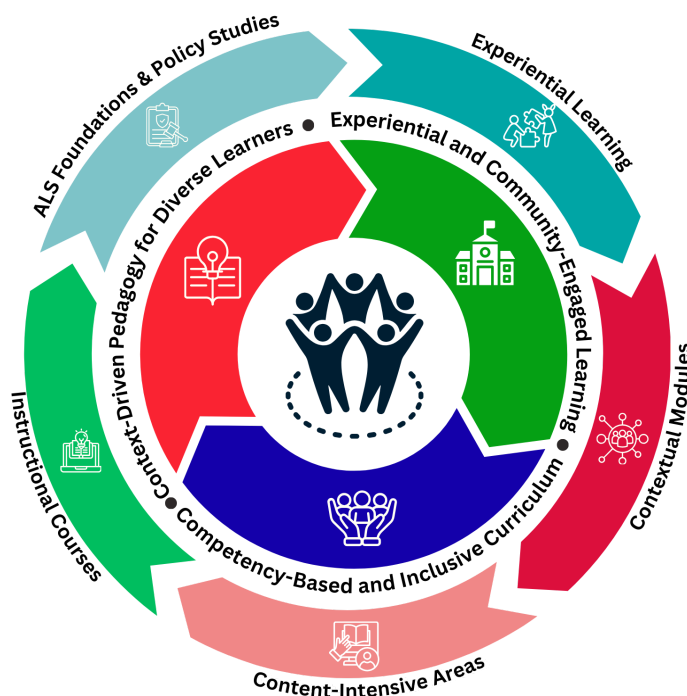
Undergraduate Certificate Courses

Annex E.1 Certificate in Alternative Learning System

1.1 Certificate Program Description

The Certificate in Alternative Learning System (ALS) is a certificate program in non-formal education that prepares pre-service teachers to work in diverse environments, including high-risk contexts such as corrective and rehabilitation facilities, conflict-affected, and remote communities. Anchored in context-driven adult learning and competency-based inclusive curriculum, it equips pre-service teachers to design, implement, and assess learning programs that promote equity and lifelong learning. Through six courses, pre-service teachers demonstrate competence in ALS foundations and learning strands, design contextualized modules, and apply flexible and inclusive teaching in real ALS contexts. They also learn to manage Community Learning Centers (CLCs), manage LIS reports, and mobilize partnerships for program sustainability. Assessment skills include the use of portfolios and ALS assessment forms to recognize learners' informal and experiential learning. Pre-service teachers emerge as competent, inclusive, and community-anchored educators, serving out-of-school youth and adults, and children in special cases, committed to the transformative mission of ALS.

1.2 Certificate Program Framework



The Certificate in Alternative Learning System (ALS) Framework is built on a cyclical design that highlights the continuous and interconnected development of pre-service ALS teachers.

The first layer of cyclical arrows represents the three foundational pillars of the program: Context-Driven Pedagogy for Diverse Learners, Experiential and Community-Engaged Learning, and Competency-Based and Inclusive Curriculum. These pillars ensure that teacher preparation remains responsive to learner contexts, grounded in lived community experiences, and aligned with outcomes-based and inclusive education.

The second or outer layer of cyclical arrows operationalizes the pillars: ALS Foundations and Policy Studies, Instructional Courses, Content-Intensive Areas, Contextual Modules, and Experiential Learning. Each area reinforces the others, demonstrating that ALS teacher education is not linear but dynamic and integrative.

At the center of the framework is the symbol of community and learner empowerment, emphasizing that the ultimate goal of the program is to prepare quality Filipino ALS teachers who can empower diverse learners and transform communities through inclusive, relevant, and lifelong learning opportunities.

1.3 Certificate Program Outcomes

Certificate in ALS Program Outcomes	Performance Indicators
1. Demonstrate mastery of the ALS frameworks, curriculum, and learning strands. Pre-service teachers show a strong understanding of the ALS philosophy, legal bases, policies, and curriculum design, integrating literacy, numeracy, life skills, and community engagement to support inclusive and transformative learning in diverse contexts.	1.1 Analyzes the key provisions of Republic Act 11510, DepEd ALS policies, and related international and national frameworks on non-formal education. 1.2 Explains the structure, competencies, and learning strands of the ALS basic education curriculum and their alignment with lifelong learning goals. 1.3 Unpacks and interprets ALS learning competencies and identifies appropriate learning outcomes for various learner contexts. 1.4 Selects, adapts, and organizes suitable learning materials and community resources aligned with ALS strand outcomes. 1.5 Develops and applies authentic and alternative assessment tasks consistent with ALS principles and learner-centered approaches.
2. Engage with relevant learning philosophies and theories to inform inclusive and flexible teaching practices in diverse ALS learning contexts. Pre-service teachers understand, analyze, and apply learning philosophies and theories—humanistic, constructivist, experiential, transformative, adult, heutagogical, and lifelong learning—to interpret learners' contexts and guide the design of humane, inclusive, and responsive ALS learning experiences.	2.1 Identifies and explains key learning philosophies and theories that underpin the Alternative Learning System and their relevance to non-formal, inclusive, and lifelong education. 2.2 Compares and critiques major learning theories, highlighting their strengths, limitations, and practical implications for teaching out-of-school youth and adults in the Philippine context. 2.3 Contextualizes learning theories to the realities of ALS learners, including those in marginalized, displaced, or high-risk environments, demonstrating awareness of social, cultural, and economic influences on learning. 2.4 Applies insights from learning philosophies and theories to analyze learning situations and propose strategies that foster learner motivation, participation, and growth. 2.5 Designs a learning session plan or activity that reflects ALS learning philosophies and theories, demonstrating inclusive and learner-centered approaches appropriate to diverse contexts.

3. Facilitate learning processes that develop functional literacy, strengthen life skills, and prepare learners for diverse post-program pathways, including higher education, technical-vocational training, entrepreneurship, and employment. Pre-service teachers will effectively integrate modular and blended learning, ICT use, portfolio-based assessment, and career guidance to prepare learners for higher education, technical-vocational training, entrepreneurship, or work opportunities.	3.1 Facilitates inclusive learning sessions using appropriate learning modalities that achieve strand-based competencies. 3.2 Integrates functional life skills and employability activities (e.g., entrepreneurship, livelihood tasks) in lessons. 3.3 Guides learners in preparing and updating their individual learning portfolios. 3.4 Facilitates socioemotional learning sessions and career guidance linking learners to higher education, skills training, or work opportunities. 3.5 Documents learner progress and pathway decisions using ALS assessment tools.
4. Manage ALS program systems and community-based learning centers effectively. Pre-service teachers will demonstrate competencies in CLC-based management, enrollment, and reporting through the Learners' Information System (LIS), and mobilizing community partnerships and resources to sustain ALS delivery.	4.1 Prepares regular and participatory action plan for the Community Learning Center (CLC). 4.2 Encodes and updates learner enrolment and completion records in the LIS. 4.3 Generates and presents ALS progress and accomplishment reports to stakeholders. 4.4 Advocates and mobilizes community partnerships (e.g., LGUs, CSOs, TESDA, academe, industries) and local resources (e.g., venues, materials, volunteers) to sustain and expand ALS delivery. 4.5 Organizes learner activities such as Kumustahan, portfolio assessment, or moving-up rites.
5. Embody professional values and dispositions that advance inclusivity, lifelong learning, and community transformation. Pre-service teachers will exemplify ALS values like caring, self-reliant, independent, productive, and patriotic, as anchored on RA 11510, reflective practice, resilience, collaboration, and empowerment-oriented leadership, serving as advocates of equity, social transformation, and education-driven community development.	5.1 Demonstrates respect for cultural and social diversity in interactions with learners and stakeholders. 5.2 Maintains a reflective journal or learning log documenting teaching challenges and personal growth. 5.3 Practices teacher agency (e.g., adaptive, resourceful) when faced with various learner, community, and other related constraints (e.g., lack of electricity, multi-age groups, emergencies). 5.4 Collaborates with peers and mentors in sharing insights, advocacies, and emerging best practices in Alternative Learning System instruction and community engagement. 5.5 Engages in continuous professional growth through participation in field exposure, learning action sessions, seminars, and other capacity-building activities that support lifelong learning and career readiness in teaching.

1.4 Sample Certificate Program Mapping

Certificate in ALS Courses	PO1	PO2	PO3	PO4	PO5
1. Overview and Foundations of ALS Curriculum	I	I	I	I	P
2. Learning Theories and Philosophies in ALS	I	I	I	I	P
3. Facilitating Learning in ALS	P	P	P	I	D
4. Management of ALS Programs and Community Learning Centers	P	P	D	D	D
5. Advocacy and Social Mobilization in ALS	D	P	D	D	D

6. Inquiry and Reflective Practices in ALS	D	D	D	D	D
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1.5 Certificate Program Course Descriptions

Course Title	Overview and Foundations of ALS Curriculum
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides pre-service teachers with a broad understanding of the Alternative Learning System as a vital component of non-formal education in the Philippines. It examines its historical and legal foundations, including Republic Acts 9155 and 11510, along with national and international policies that promote non-formal, inclusive, and lifelong learning. The course explores the structure and content of the ALS within the prevailing Basic Education Curriculum, focusing on its competencies, learning strands, and resources that foster functional literacy, numeracy, life skills, citizenship, and employability. Pre-service teachers study how learning is assessed in formal, non-formal, and informal settings, emphasizing authentic and alternative forms of assessment suited to diverse learner contexts. They participate in policy discussions, curriculum mapping, learner profiling, and case analyses of community-based ALS programs. They perform practical tasks such as unpacking learning competencies, designing learning activities, materials, and linking community resources to learning strands. Through collaborative discussions, site visits, and reflective documentation, pre-service teachers develop a grounded understanding of how ALS policies, curriculum, and assessment practices advance equity, inclusion, and transformation in education for all learners and communities.

Course Title	Learning Theories and Philosophies in ALS
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course strengthens pre-service teachers' understanding of the philosophical and theoretical foundations that guide the Alternative Learning System as a form of non-formal education in the Philippines. It examines key learning theories relevant to ALS—humanistic, constructivist, experiential, transformative, adult learning, heutagogical, and lifelong learning, including the Convergence learning theory—and explains how these philosophies, theories, and frameworks shape how learners acquire knowledge, develop competencies, and find meaning in diverse and often challenging contexts. The course reinterprets humanism in its contemporary sense, viewing learners as whole persons whose learning is influenced by their material realities and mediated by technology, digital environments, and artificial intelligence. Pre-service teachers analyze how these foundations inform learning among out-of-school youth and adults, as well as children and adults experiencing disability, displacement, geographic isolation, social or economic hardship, and other difficult circumstances. Through critical reflection, case analysis, and theory-to-practice synthesis, pre-service teachers learn to design humane, inclusive, and technology-responsive learning environments that nurture human potential and prepare learners to become engaged citizens, productive workers, and entrepreneurs in a rapidly changing world.

Course Title	Management of ALS Programs and Community Learning Centers
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the competencies to effectively manage Alternative Learning System (ALS) programs and Community Learning Centers (CLCs). It introduces key ALS stakeholders and their roles in advancing education initiatives while providing practical experience in establishing and managing CLCs according to their typologies. Pre-service teachers engage in hands-on use of the Learners' Information System (LIS) for enrollment, updating, and reporting learner data, while upholding data privacy and ethics, and apply participatory approaches in planning, monitoring, and evaluation through the use of standard reporting templates such as mapping tools, individual learning agreement (ILA), and recognition of prior learning (RPL). Practice-based learning activities include LIS encoding drills, community mapping, mock CLC planning sessions, and organizing learner activities. Pre-service teachers prepare a comprehensive CLC management plan, and generate progress reports using simulated data. DepEd LIS manuals, ALS forms, and sample CLC plans serve as primary references. Assessment focuses on hands-on LIS encoding, the quality of submitted management plans, and oral presentations. By the end of the course, pre-service teachers submit a CLC management plan, present a progress report, successfully encode a learner in the LIS, and propose a well-organized learner activity.

Course Title	Facilitating Learning in ALS
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course develops the competencies of pre-service teachers to facilitate literacy, numeracy, life skills, employability, and post-program pathways among ALS learners. It emphasizes the integration of various learning modalities—such as modular, media-based, and blended approaches—and the strategic use of ICT in low-resource contexts to ensure inclusive and flexible instruction. Pre-service teachers design and deliver functional literacy and numeracy lessons that integrate health, environmental, financial, and digital literacies, making learning practical, relevant, and community-responsive. The course builds capacity to design holistic learning experiences aligned with ALS competencies, TESDA qualifications, and lifelong learning frameworks. It further trains pre-service teachers to apply ALS assessment tools such as the Assessment of Basic Literacy (ABL), Functional Literacy Test (FLT), and learner portfolios to monitor progress and support individualized learning pathways. It also underscores socioemotional learning and career guidance to prepare learners for higher education, technical-vocational training, entrepreneurship, or employment. Learning activities include workshops, role-playing, and practicum-based applications, while assessment tasks involve demonstration teaching, use of ALS assessment tools, and portfolio design—enabling pre-service teachers to demonstrate competence in facilitating lifelong learning and empowering ALS learners to become self-reliant and productive members of society.

Course Title	Advocacy and Social Mobilization in ALS
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course develops the professional values, dispositions, and advocacy skills essential for teachers in the Alternative Learning System, as mandated by Republic Act 11510 and aligned with the mission of inclusive and transformative education. It emphasizes the principles of Advocacy and Social Mobilization, guiding pre-service teachers to design and implement participatory action plans for Community Learning Centers, generate and present progress reports to stakeholders, and organize learner-centered activities that promote engagement and achievement. The course nurtures pre-service teachers to embody the core values of caring, self-reliance, independence, productivity, and patriotism while cultivating reflective practice, resilience, collaboration, and empowerment-oriented leadership. Through community immersion, mentorship, and reflective practice, pre-service teachers engage with learners, parents, and local leaders to advocate and mobilize partnerships with government units, civil society organizations, educational institutions, and industries to sustain and expand ALS delivery. Course outputs include a community assessment report, an advocacy and mobilization campaign proposal, and a community engagement portfolio that demonstrate growth as reflective, socially responsible educators committed to advancing lifelong learning and equity through education-driven social transformation.

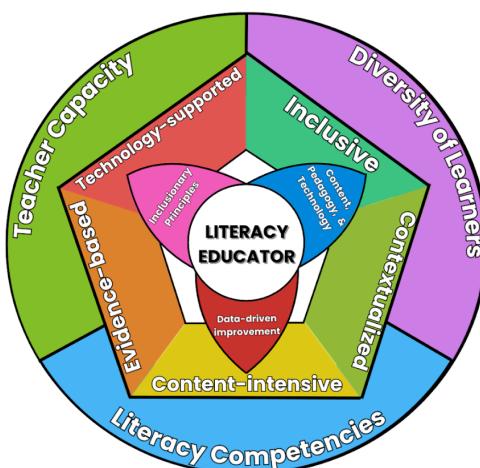
Course Title	Inquiry and Reflective Practices in ALS
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course enables pre-service teachers to derive insights from their collective experiences in the field, emphasizing reflective inquiry, problem-solving, and technology-enhanced documentation rather than formal academic research. It trains students to identify practical challenges in ALS implementation—such as learner participation, resource limitations, and partnership coordination—and to design simple, innovative, and often technology-supported solutions that improve learning delivery and access. Using traditional and digital tools such as learning logs, online journals, mobile-based surveys, digital storytelling, and e-portfolios, students document and analyze their field experiences. They synthesize and present their reflections through digital journals, case studies, video narratives, or mini-project reports that demonstrate the use of technology to enhance inclusivity, voice, and community connection. Mentorship sessions, peer exchanges, and feedback loops help students refine their innovations and ground their practices in the ALS principles of flexibility, accessibility, and responsiveness. By the end of the course, they produce a capstone project, a digital portfolio showcasing their field-based insights and creative interventions that exemplify reflective, adaptive, and learner-centered practice in non-formal education.

Annex E.2 Certificate in Literacy Education

2.1 Certificate Program Description

This program offers a strong foundation in literacy education, equipping pre-service teachers with the knowledge, skills, and pedagogical expertise necessary to foster literacy development in diverse learners. Structured around six core courses, it examines contemporary trends, resource design, assessment practices, program development, multidimensional literacy instruction, and targeted interventions. Through critical analysis, hands-on application, and the design of lessons and programs, pre-service teachers build the capacity to deliver inclusive and evidence-based literacy instruction. The program highlights reflective practice, learner-centered approaches, and data-driven strategies to support effective literacy learning in diverse educational settings.

2.2 Certificate Program Framework



The Certificate in Literacy Education is driven by the urgent need for addressing diversity of learners and learning contexts, enhancing literacy competencies, and strengthening teacher capacity, adaptability, and support. The curriculum framework is designed to be inclusive, contextualized, content-intensive, evidence-based, and technology-supported. It integrates inclusionary principles in the design and conduct of literacy instruction and assessment for all learners, grounding teaching in learners' educational and social realities. The framework deepens knowledge of key language and literacy concepts while utilizing relevant and up-to-date information to guide instructional and assessment decisions. Additionally, it leverages technology to enhance teaching and assessment practices, demonstrating strong content knowledge alongside pedagogical and technological competencies, and employs data to continuously improve literacy instruction and outcomes.

2.3 Certificate Program Outcomes

Certificate in Literacy Education Program Outcomes	Performance Indicators
1. Demonstrates pedagogical content knowledge and technological competencies in literacy instruction and assessment in diverse contexts	1.1 Demonstrate how literacy competencies can be developed among diverse learners 1.2 Create a literacy lesson for a specific group of learners 1.3 Apply appropriate approaches and/or strategies in literacy instruction 1.4 Evaluate learning resources used in literacy education 1.5 Create learning resources appropriate for literacy teaching and learning of a specific group of learners

	1.6 Construct literacy assessment tools appropriate to (a) particular learner(s) 1.7 Implement procedures and tools in the assessment of literacy performance 1.8 Examine factors that contribute to the effectiveness of a literacy program 1.9 Describe how various literacies can be fostered among diverse learners Develop a lesson for teaching a particular literacy using appropriate instructional materials 1.10 Utilize an appropriate approach and/or strategy in teaching a specific literacy 1.11 Identify the strengths and limitations of learners in terms of their literacy schools 1.12 Design a literacy intervention that: takes into account the context(s)/reality(ies) of (a) learner(s); addresses the strengths and needs of a particular (group of) learner/s; and incorporates the use of evidence-based techniques and strategies
2. Integrates inclusionary principles in the design and conduct of literacy instruction and assessment for learners in school- and community-based settings	2.1 Compare and contrast different trends in literacy teaching and learning 2.2 Describe the role of learning resources, including but not limited to print and digital materials, in literacy teaching and learning 2.3 Examine the principles and procedures in designing and planning learning resources for literacy education 2.4 Discuss the nature and purposes of literacy assessment 2.5 Examine how literacy abilities (and correlates of literacy performance) are assessed 2.6 Analyze the basic principles for developing, implementing, and evaluating various types of literacy programs 2.7 Critique different literacy programs 2.8 Appraise the theories and principles that support the development of various literacies
3. Uses data to deliver and continuously improve literacy instruction and outcomes to address learners' needs	3.1 Analyze literacy assessment data and their implications for literacy education 3.2 Recommend improvements to an existing literacy program (3.3 Implement literacy intervention informed by learner behavior and performance 3.4 Monitor the progress of each learner vis-à-vis the delivery of instruction 3.5 Make practical literacy-related recommendations for a particular (group of) learner/s

2.4 Sample Certificate Program Mapping

Certificate in Literacy Education Courses	PO1	PO2	PO3
1. Trends in Literacy Education	P	P	
2. Learning Resources in Literacy Education	P	P	
3. Assessment of Literacy Abilities	P	I	P
4. Design and Evaluation of Literacy	I	P	P

Programs			
5. Teaching Multiple Literacies	D	I	
6. Literacy Interventions	D		D

2.5 Certificate Program Course

Descriptions

Course Title	Trends in Literacy Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Theories and Approaches in Literacy Education [ProfEd]
Description	Trends in Literacy Education is a course that prepares pre-service teachers to examine different trends in literacy teaching and learning. It also provides them with the opportunity to demonstrate how literacy competencies can be developed among diverse learners and to apply appropriate approaches and strategies in literacy instruction. Ultimately, pre-service teachers learn to create a literacy lesson for a specific group of learners by applying these concepts. Additionally, this course examines contemporary trends, diverse approaches, and appropriate strategies in literacy education, equipping pre-service teachers with the competencies necessary to teach a range of learners. Students engage in a critical analysis of current perspectives on literacy instruction, develop practical skills for supporting literacy growth across diverse learner groups, and design effective literacy lessons. Finally, the course highlights the use of inclusive, research-informed practices to promote literacy development for all learners. This course combines lecture-discussions with explicit and implicit instruction to strengthen foundational knowledge and encourage active learning. Preservice teachers participate in workshops, lesson planning, and micro-teaching to practice and refine instructional skills. Assignments, group activities, and assessments provide opportunities for collaboration, application, and evaluation of literacy competencies.

Course Title	Learning Resources in Literacy Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Theories and Approaches in Literacy Education [ProfEd]
Description	Learning Resources in Literacy Education is a course that immerses pre-service teachers in the role of learning resources in literacy teaching and learning. Throughout the course, they examine the principles and procedures for designing and planning learning resources as well as evaluating their use in literacy education. The course also provides the opportunity to design learning resources appropriate for literacy teaching and learning of a specific group of learners. Moreover, the course introduces key principles and approaches in selecting, designing, and utilizing learning resources. Pre-service teachers examine the vital role of diverse and culturally responsive materials in enriching literacy teaching and learning. They get to develop competencies in critically assessing existing resources and in developing contextualized and learner-centered materials that address the literacy needs of specific groups. Furthermore, the course emphasizes aligning resource development with best practices and essential literacy competencies. Pre-service teachers participate in lecture-discussions and hands-on workshops featuring both explicit and implicit instruction to enhance their knowledge of literacy principles and practices. Finally, the course emphasizes collaborative learning through paired and small-group activities, critical evaluation and creation of learning materials, and continuous assessments to support the practical application of literacy strategies and the enhancement of

	teaching skills.
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Course Title	Assessment of Literacy Abilities
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Theories and Approaches in Literacy Education [ProfEd]
Description	Assessment of Literacy Abilities is designed to equip pre-service teachers with skills and knowledge of literacy assessment. Pre-service teachers will examine how literacy abilities are assessed. The course provides them with the skills to design literacy assessment tools appropriate to (a) particular learner(s) and to implement procedures and tools for assessing literacy performance. Additionally, the course equips them to analyze assessment data and their implications in literacy learning. Pre-service teachers are immersed in a comprehensive study of strategies for assessing the literacy skills of diverse learners. Moreover, the course addresses the fundamental principles and purposes of literacy assessment; introduces a range of methods for assessing literacy performance; and guides students in designing assessment tools suited to varied learner profiles. Pre-service teachers engage in practical experiences that include administering assessments, analyzing results, and using data to enhance literacy instruction. The course highlights equitable and inclusive assessment practices to ensure responsiveness to learners' diverse needs. It involves lecture-discussions and workshops that use both explicit and implicit instruction. Pre-service teachers participate in collaborative activities, fieldwork that includes observations, literacy assessments, designing literacy assessment tools, and completing assignments and various assessments to promote the practical application and mastery of literacy assessment skills.

Course Title	Design and Evaluation of Literacy Programs
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Theories and Approaches in Literacy Education [ProfEd]
Description	Design, Implementation, and Evaluation of Literacy Programs is a course that prepares pre-service teachers to analyze the basic principles for developing, implementing, and evaluating various types of literacy programs. It also provides the opportunity to critique different literacy programs and to examine factors that contribute to their effectiveness. Ultimately, pre-service teachers learn to recommend improvements to an existing literacy program. This course also explores the foundational principles and emerging trends in the design and evaluation of literacy programs. Pre-service teachers examine the essential elements that influence program effectiveness, compare and contrast various literacy programs, and strengthen their ability to make informed recommendations for program enhancement. The course likewise emphasizes evidence-based practices and practical strategies that support the literacy development of diverse learners. Pre-service teachers engage in lecture-discussions and workshops that incorporate both explicit and implicit instruction to develop their knowledge of literacy programs. Learning experiences include pair and small-group activities, fieldwork involving the observation of literacy programs in practice, along with assignments and assessments designed to connect theory with practice and effectively measure learners' progress.

Course Title	Teaching Multiple Literacies
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Theories and Approaches in Literacy Education [ProfEd]
Description	Teaching Multiple Literacies is a course designed to prepare pre-service teachers to analyze the theories and principles that support the development of various literacies. The course provides opportunities for them to demonstrate how various literacies can be fostered among diverse learners. Additionally, pre-service teachers learn to design a lesson for teaching a particular literacy using appropriate instructional materials and to apply an appropriate approach and/or strategy. This course examines the theories, principles, and instructional approaches for teaching multiple literacies, including but not limited to reading, digital, media, financial, and cultural literacies. It emphasizes the use of effective strategies, appropriate learning materials, and assessment tools to promote literacy development in different contexts. Pre-service teachers engage in research-based practices, design purposeful lessons, and apply instructional methods that support literacy development across a range of domains. In this course, learners engage in lecture-discussions and hands-on workshops that use both explicit and implicit instruction to master the teaching of multiple literacies. The course includes pair and small-group activities, lesson planning, micro-teaching sessions, assignments, and assessments—all designed to strengthen the understanding and development of multiple literacies.

Course Title	Literacy Interventions
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Theories and Approaches in Literacy Education [ProfEd]
Description	Literacy Interventions is designed to prepare pre-service teachers to assess the literacy performance of a learner/s. The course provides the knowledge and skills necessary to design a literacy intervention that takes into account the context(s)/reality(ies) of (a) learner(s), addresses the needs of a particular (group of) learner/s, and incorporates the use of evidence-based strategies. Furthermore, pre-service teachers implement a literacy intervention informed by learner behavior and performance, monitor the progress of each learner vis-à-vis the delivery of instruction, and make practical literacy-related recommendations. This course explores key approaches for designing, implementing, and evaluating various literacy interventions. Pre-service teachers learn to assess literacy performance, create evidence-based intervention plans, monitor progress, and recommend improvements to strengthen literacy outcomes. The course emphasizes data-informed instructional decisions and continuous refinement of practice to support effective literacy development. In this course, pre-service teachers participate in lecture-discussions and workshops that integrate both explicit and implicit instruction to deepen their understanding of literacy interventions. The course features pair and small-group activities, fieldwork involving literacy assessments and intervention sessions, case studies, lesson planning, assignments, and assessments designed to develop skills in literacy interventions.

Annex E.3 Certificate in Indigenous Peoples Education

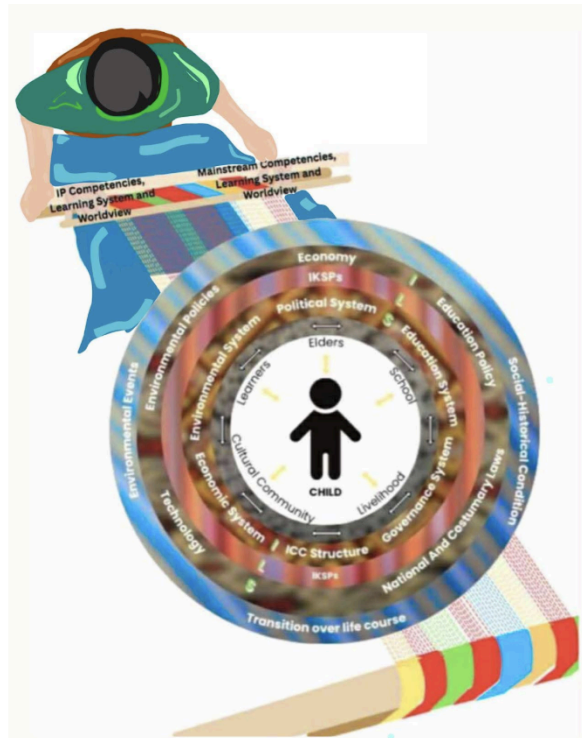
3.1 Certificate Program Description

The Certificate in Indigenous Peoples Education (IPEd) is an undergraduate certificate program designed to complement a Pre-service teacher's bachelor's degree while strengthening preparation for teaching and community engagement in Indigenous Peoples (IP) contexts.

It develops culturally responsive educators with the knowledge, attitudes, values and skills (KAVS) necessary in developing and facilitating contextualized and meaningful learning experiences for IP learners based on the appropriate interplay of Indigenous Knowledge Systems and Practices (IKSPs) and the national education curriculum.

Aligned with the principle of free, prior, and informed consent, the Program promotes collaboration with community elders and culture bearers in the contextualization of the curriculum, learning delivery, learning environment, and learning assessment, enabling graduates to be co-advocates in nurturing the cultural heritage rights and welfare of Indigenous Cultural Communities (ICCs) through IP Education.

3.2 Certificate Program Framework



The Certificate Program in Indigenous Peoples Education is designed to cultivate culturally responsive educators who are capable of mediating and facilitating the interface between Indigenous Peoples education systems and worldviews, and the broader Filipino educational paradigm. Anchored on and driven by the Indigenous Peoples Rights Act (IPRA), the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Department of Education's Indigenous Peoples Education Policy Framework (Department Order 62 s 2011), the Program grounds the teacher education program in community-based contexts including Indigenous Education Systems, the rights-based framework, and the various aspects of the Indigenous Peoples advocacy that have a bearing on education. With teachers who promote cultural integrity, respect for diversity, community-based education approaches, and inclusive pedagogy, the program hopes to nurture Indigenous Peoples learners who are capable of

engaging the various layers and dynamics of the wider society while promoting their community's rights and self-determination.

3.3 Certificate Program Outcomes

Certificate in Indigenous Peoples Education Program Outcomes	Performance Indicators
1. Demonstrate a critical, rights-based, and culturally grounded understanding of Indigenous Peoples Education through the integration of Indigenous Knowledge Systems, historical consciousness, legal frameworks, and ethical principles that promote self-determination, uphold cultural integrity, and sustain inclusive learning communities.	19. Analyze and articulate how historical, legal, and cultural frameworks shape the policies, practices, and challenges of Indigenous Peoples Education (IPEd) in the Philippine context. 20. Explain the historical evolution and philosophical foundations of education in relation to cultural diversity and Indigenous Peoples' educational experience. 21. Demonstrate ethical sensitivity and professional integrity in addressing cultural, legal, and social issues affecting indigenous communities and their right to education. 22. Establish, maintain, and strengthen partnerships with Indigenous communities, organizations, elders, and culture bearers to collaboratively support IPEd implementation, including mapping of cultural activities and identification of Indigenous Peoples' competencies across subject areas. 23. Design and implement culturally responsive and decolonial learning strategies that integrate indigenous worldviews, values, and ethical considerations in classroom and community contexts.
2. Demonstrate mastery of the discipline-based concepts in relation to Indigenous Knowledge Systems and Practices (IKSP), ancestral domain, indigenous governance and traditional resource management, and basic rights of the IP Community.	2.1 Explain the relationality between discipline-based concepts and IKSPs, ancestral domain, and indigenous resource management with clarity and accuracy. 2.2 Engage in community exposure activities by participating in indigenous rituals, livelihood practices, or ecological stewardship initiatives. 2.3 Produce reflective documentation (most significant change) that demonstrates a deep understanding of IKSP, ancestral domain issues, resource management, and IP rights.
3. Adapt to diverse environmental and cultural conditions by optimizing and innovating available resources and integrating appropriate technologies in varied learning contexts as an IPEd teacher.	3.1 Select and adapt locally available materials and community resources to create relevant teaching aids. 3.2 Implement innovative practices that respond to community-specific educational needs while respecting Indigenous cultural values.

4. Promote the cause of Indigenous Peoples Education (IPEd) with pride and dignity by embodying appropriate knowledge, attitudes, values and skills (KAVS) as a duty bearer and culture worker.	4.1 Recognize and appreciate the validity and integrity of the indigenous knowledge, skills, and practices (IKSPs) and the indigenous learning system. 4.2 Facilitate learning activities that promote cultural consciousness, inclusivity, and respect for diversity. 4.3 Advocate for the recognition and protection of the basic rights of IP learners and communities through culturally responsive teaching.
5. Demonstrate the ability to interface DepEd learning competencies with community-identified competencies to ensure culturally responsive, contextually grounded, and inclusive curriculum implementation.	19. Craft indigenized competencies based on ICC cultural standards to improve IP learners' Learning outcomes. 20. Analyze mainstream curriculum, topics, and competencies that are parallel to IKSPs and ILS. 21. Contextualize (localize and indigenize) national standards through Indigenous pedagogies, languages, and culturally appropriate practices.
6. Apply indigenous methodologies and approaches through contextualized instruction and research-based initiatives in diverse learning content and contexts as an ethno-pedagogy practitioner.	6.1 Conduct participatory research (e.g., community interviews, participant observation) with the community to develop culturally responsive teaching-learning methodologies and materials. 6.2 Develop and implement innovative uses of available resources (local materials, community expertise) to support IPED curriculum delivery. 6.3 Conduct validation of developed teaching-learning materials with the elders and culture-bearers. 6.4 Apply appropriate digital and non-digital technologies that suit the learners' context and community conditions.
7. Construct context-sensitive and participatory assessments that recognize indigenous ways of knowing, valuing traditional knowledge validation processes alongside authentic evaluation methods.	7.1 Implement holistic assessment approaches that consider the spiritual, emotional, physical, and mental aspects of learning, consistent with Indigenous worldviews, while recognizing their interconnection with broader community and system processes. 7.2 Develop assessments that reflect the community's values, traditions, and practices, promoting authentic learning and assessment experiences. 7.3 Incorporate assessment approaches that are consistent with Indigenous cultural practices, such as storytelling, observation, and peer assessment. 7.4 Engage community elders and culture bearers as partners in assessing learners' Indigenous Peoples Education (IPED) competencies to ensure cultural accuracy, authenticity, and contextual relevance. 7.5 Conduct system-level assessments to evaluate the effectiveness of Indigenous Peoples Education (IPEd) facilitation processes—including teaching practices, community engagement, curriculum implementation, and institutional support systems—using participatory and

	culturally grounded evaluation frameworks validated by Indigenous communities.
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3.4 Sample Certificate Program Mapping

Certificate Indigenous Peoples Education Courses	PO1	PO2	PO3	PO4	PO5
1. Cultural Anthropology and Indigenous Knowledge Systems	I	I		I	
2. Historical, Legal, and Ethical Foundations of Indigenous Peoples Education	I	I		I	
3. Indigenous Education Systems		P	P	P	
4. Curriculum Development in Indigenous Peoples Education		P	P	P	P
5. Assessment and Evaluation in Indigenous Peoples Education	D	D	P	P	D
6. Teaching and Learning in Indigenous Peoples Education	D	D	D	P	P

3.5 Certificate Program Course Descriptions

Course Title	Cultural Anthropology and Indigenous Knowledge Systems
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with a strong foundation in Cultural Anthropology and Indigenous Knowledge Systems and Practices (IKSP) as they relate to education, identity, and community life. It examines how Indigenous communities create, preserve, and transmit knowledge through lived experiences, rituals, oral traditions, ecological relationships, and social institutions. A clear working knowledge of tangible and intangible culture, including their elements and features, and attitudes toward culture, is treated as a mandatory core component. The course also develops cultural sensitivity and advances learners toward cultural competence as essential dispositions for future educators. The course critically engages concepts such as decolonization, decoloniality, indigeneity, and indigenization of knowledge, challenging dominant Western epistemologies and affirming culturally grounded ways of knowing. As it explores decolonizing methodologies, it lays out the urgent issues and persistent concerns faced by ICCs/IPs, including land dispossession, cultural marginalization, misrepresentation, and inequitable access to education and resources. Through ethnographic observation, reflection, and cultural immersion, pre-service teachers learn to engage respectfully with Indigenous knowledge as living, dynamic, and community-based systems. The course culminates in an analytical paper examining community origin narratives and how these have been reshaped by contemporary educational developments.

Course Title	Historical, Legal and Ethical Foundations of Indigenous Peoples Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Cultural Anthropology and Indigenous Knowledge Systems
Description	This course examines the historical, legal, and ethical foundations of Indigenous Peoples Education (IPEd) in the Philippines. It examines the evolution of educational systems and corresponding policies from precolonial traditions through colonial and postcolonial transformations, situating contemporary IPEd initiatives within broader struggles for self-determination, human rights, and cultural integrity. Pre-service teachers critically analyze key legal frameworks that uphold Indigenous Peoples' rights to education and ancestral domains, with the 1987 Philippine Constitution providing the impetus and operationalized primarily through the Indigenous Peoples Rights Act of 1997 (RA 8371), the Bangsamoro Indigenous Peoples Rights Act (BIPA), the DepEd IPEd Policy Framework, and reinforced by relevant international instruments. Emphasis is placed on ethical responsibilities in advancing inclusive and rights-based education, particularly the principles of Free, Prior, and Informed Consent (FPIC), community participation, and Indigenous governance of education. Through case studies and critical reflection, students develop justice-oriented perspectives for implementing IPEd in both formal and community-based contexts. By the end of the course, they will produce a policy proposal addressing identified gaps or challenges in Indigenous Peoples Education, grounded in historical analysis, aligned with existing legal frameworks, and guided by ethical principles that respect Indigenous rights and knowledge systems.

Course Title	Indigenous Education Systems
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Cultural Anthropology and Indigenous Knowledge Systems; Historical, Legal and Ethical Foundations of Indigenous Peoples Education
Description	This course introduces Pre-service teachers to the nature and dynamics of Indigenous Education Systems as the systematized delivery system that has evolved in relation to the knowledge transmission-based Indigenous Learning Systems of ICCs/IPs that are currently experienced by them in contemporary times. The primary purpose is to help teachers appreciate and put forward indigenous knowledges into their teaching practice. Through exposure to community activities and interact with culture bearers, knowledge holders and elders using both cultural-anthropology and education lenses, Pre-service teacher will encounter the education system of the IP community - how IKSPs have their own scope and sequence (curriculum), how they are transmitted (learning delivery), how learning is assessed (assessment), and how learning outcomes are communicated and upheld by the community (education philosophy). They will also analyze the impacts of various social forces on the continuity of Indigenous Education Systems, together with the community's efforts to engage contemporary education challenges.

	At the end of the course, guided by the community's practices and protocols through community exposure, they will contribute to the documentation of the community's Indigenous Education Systems, the development of education resources needed by the community, or similar education initiatives being undertaken by the community.
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Course Title	Curriculum Development in Indigenous Peoples Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Cultural Anthropology and Indigenous Knowledge Systems; Historical, Legal and Ethical Foundations of Indigenous Peoples Education; Indigenous Education Systems
Description	This course provides Pre-service teachers with a historical overview of curriculum development in Indigenous Peoples Education (IPEd) efforts in the Philippines. Students will learn about, analyze, and critique the initiatives of various pioneering institutions in the Philippines in implementing culture-based education in the context of Indigenous Cultural Communities (ICCs). How these institutions' experiences shaped current DepEd policies and frameworks for Indigenous Peoples Education (IPEd) will also be explored. Through interactive discussions, community exposure, and hands-on projects, Pre-service teachers will learn the rudiments of designing curricula appropriate for IP learners based on the experiences of pioneer IPEd implementing institutions and public schools implementing IPEd. This will include practical skills in crafting syllabi, lesson plans, and learning resources that interface national competencies and standards with indigenous knowledge and community learning standards. Pre-service teachers will also analyze the current curriculum implementation of IPEd in private community-based learning institutions and public schools, as they engage the challenges of contemporary times. This course enables Pre-service teachers to create culturally responsive teaching practices and learning environments that honor the richness of indigenous cultures while meeting learning objectives, and cultivates their commitment to promoting cultural diversity and equity in education.

Course Title	Assessment and Evaluation in Indigenous Peoples Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Cultural Anthropology and Indigenous Knowledge Systems; Historical, Legal, and Ethical Foundations of Indigenous Peoples Education; Indigenous Education Systems; Curriculum Development in Indigenous Peoples Education
Description	This course prepares Pre-service teachers to design, implement, and evaluate culturally grounded and community-centered assessment systems for Indigenous learners. Anchored in rights-based, ethical, and culturally responsive principles, it examines the historical, legal, and philosophical foundations of Indigenous Peoples Education (IPEd) and their implications for assessment in diverse Indigenous contexts. Drawing from Indigenous Knowledge Systems and Practices (IKSPs), Indigenous Learning Systems (ILS), and community-defined competencies, the course develops the ability to create holistic, context-sensitive, and participatory assessment

	tools that honor Indigenous worldviews. Students learn to align DepEd competencies with community cultural learning standards, apply Indigenous methodologies, and use appropriate digital and non-digital technologies. Through experiential and community-engaged activities—including consultation with elders and culture-bearers, curriculum development, and reflective documentation—students strengthen their capacity to implement authentic, decolonial, and culturally ethical assessment practices. Emphasis is placed on traditional validation processes such as storytelling, observation, performance-based tasks, and community-based evaluation. By the end of the course, students will be able to develop culturally responsive and system-level assessment plans that uphold Indigenous rights, promote self-determination, protect cultural integrity, and support inclusive, community-rooted IPEd implementation. By the end of the course, pre-service teachers will be able to conduct individual, classroom, and co-create culturally
Course Title	Teaching and Learning in Indigenous Peoples Education
Course Credits	3 units
Contact Hours	54
Prerequisite/s	Historical, Legal, and Ethical Foundations of Indigenous Peoples Education; Indigenous Education Systems; Curriculum Development in Indigenous Peoples Education; Assessment and Evaluation in Indigenous Peoples Education
Description	This course provides a critical exploration of pedagogical theories, principles, and practices that shape effective and culturally grounded teaching in Indigenous Peoples Education (IPEd). It examines how Indigenous Education Systems (IES) and indigenous ways of knowing inform culturally responsive and sustaining pedagogies that honor community knowledges, languages, and worldviews. Building on previous courses, students will engage with various instructional approaches such as place-based learning, storytelling, land-based education, and multigrade or mixed-age teaching, common in indigenous contexts. Emphasis is placed on community-embedded instruction that fosters inclusive, participatory, and identity-affirming learning experiences. Culturally responsive and community-centered learning assessment will also be applied. The course also focuses on the design and development of localized and culture-responsive learning resources that integrate indigenous languages, symbols, and cultural content. Through field-based collaboration with culture bearers and community partners, Pre-service teachers will ensure that learning resources are contextually accurate and respectful of indigenous heritage. By the end of the course, they are expected to demonstrate culturally responsive teaching through demonstration teaching and to produce localized instructional materials that promote inclusivity, strengthen cultural identity and intergenerational relations, and sustain indigenous knowledges and traditions.

Annex E.4 Certificate in Islamic Education

4.1 Certificate Program Description

The Certificate in Islamic Education is a six-course add-on undergraduate certificate for pre-service teachers, designed to strengthen teacher quality in Islamic Education in the Philippines. Anchored in faith-based, equity-oriented, rights-based, context-sensitive, and integrated principles and Islamic ethics, the program prepares future teachers to deliver balanced Islamic and conventional learning that supports national aspirations for quality education and resilience, while honoring Bangsamoro aspirations and nurturing Muslim Filipino identity and heritage. The curriculum integrates foundational Islamic knowledge with interdisciplinary perspectives and community-based learning, emphasizing reflective practice, peace-oriented education, and responsible stewardship (khalīfa al-arḍ). The program is responsive to emerging practices and realities in the field, including the Arabic Language and Islamic Values Education (ALIVE) delivery, Islamic Studies and Arabic Language (ISAL) in BARMM, and Traditional and Private Madaris. The program also considers the recruitment and professional development of asatidz, community- and donor-supported education ecosystems, and the continuing reforms and professional standards shaping Islamic education. Designed to complement the *reframed* Pre-service Teacher Education Curriculum in the Philippines, the Certificate in Islamic Education integrates (1) interdisciplinary design, (2) Islamic values-based content, (3) mentorship pedagogy, and (4) experiential learning through observation, assistantship, and internship in various Islamic education settings.

Admission Requirements

Applicants must provide evidence of prior learning in Arabic and Islamic Studies at the intermediate to advanced level, demonstrated through at least one of the following:

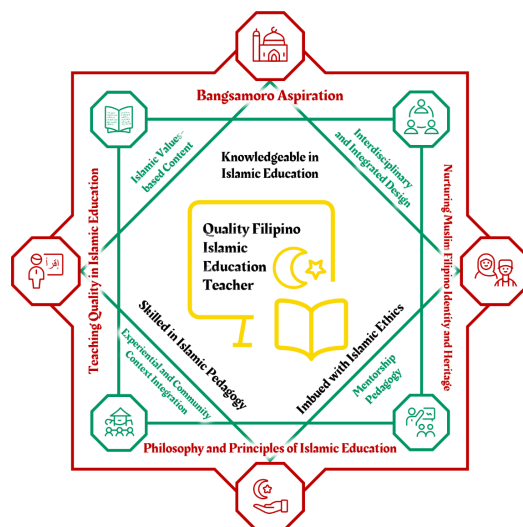
1. certificate/s of attendance in a traditional madrasah (minimum completion of Grades 1–7 or equivalent)
2. certificate/s on relevant Islamic studies preparation and training, or
3. certificate/s from a recognized institution and/or mentor confirming personal studies.

Applicants must also pass an admission assessment covering general knowledge of Islamic Studies and proficiency in Arabic, including reading, reciting, grammar, sentence structure, and writing.

Recommended Experiential Learning Requirement

During pre-service teachers' coursework and internship, the program will allot structured immersion and/or practicum placements in Islamic Education contexts, including ALIVE and ISAL - implementing schools and private integrated madāris. Within the one-year teaching internship, a dedicated period (e.g., selected months) will intentionally situate pre-service teachers in Islamic Education settings to strengthen experiential learning, mentorship-guided practice, and context-sensitive Islamic pedagogy.

4.2 Certificate Program Framework



The Program Framework uses the eight-pointed star—a classical Islamic symbol of balance, justice, and structured knowledge—to represent the Certificate in Islamic Education as an integrated, holistic model of teacher preparation grounded in Bangsamoro and Philippine Islamic education contexts. Visually formed through three-layered squares (outer, middle, inner), the framework shows how the program moves from why the program is needed to how it is designed and ultimately to what it produces. The outer layer presents the curriculum drivers that anchor the certificate—Bangsamoro Aspirations, Philosophy and Principles of Islamic Education, Teaching Quality in Islamic Education, and Nurturing Muslim Filipino Identity and Heritage—while the middle layer highlights the curriculum features that translate these drivers into course design and learning experiences: Islamic values-based content, interdisciplinary and integrated design, experiential and community context integration, and mentorship pedagogy across ALIVE, ISAL in BARMM, and traditional/private madāris. The inner square represents the intended outcomes of the program—pre-service teachers who are knowledgeable in Islamic Education, skilled in Islamic pedagogy, and imbued with Islamic ethics—and at the center, the crescent moon and star with an open book symbolizes the program’s core commitment: developing a Quality Filipino Islamic Education Teacher who embodies balanced learning, peace-oriented education, reflective practice, and responsible stewardship (khalīfa al-ard) in service of holistic development and nation-building.

4.3 Certificate Program Outcomes

Certificate in Islamic Education Program Outcomes	Performance Indicators
1. Demonstrate mastery of foundational knowledge in Islamic education.	1.1 Accurately explains foundational concepts and principles in Islamic Education: Aqidah (Theology), Fiqh (Jurisprudence), Ulum al-Qur’an (Quranic Sciences), Hadith Sciences, Seerah (Prophetic Biography), Akhlaq (Ethics), and Maqasid (objectives of Shariah) in educational contexts. 1.2 Analyzes Islamic texts and resources to derive ethical and educational guidance relevant to contemporary issues faced by Muslim learners (e.g., digital life, environmental ethics, pluralism).
2. Design faith-based, equity-oriented, and context-sensitive instruction that integrates the philosophy and principles of Islamic education to affirm Muslim Filipino identity and heritage.	2.1 Critically analyzes the philosophy and principles of the Islamic Education curriculum to reinforce Muslim Filipino identity and heritage.

	2.2 Designs constructively aligned lesson plans and learning sequences informed by the features of Islamic pedagogy.
3. Apply reflective, peace-oriented, and stewardship-centered mentorship pedagogy through action research and service learning in various Islamic education settings.	3.1 Implements a range of evidence-based, learner-centered instructional strategies anchored on Islamic pedagogy suitable for diverse Islamic Education settings. 3.2 Resolves classroom dilemmas using professional judgments based on Islamic frameworks. 3.3 Produces original teaching resources that present Islamic content through innovative pedagogical formats.
4. Exhibit a resilient, agentic professional identity as an Islamic Education teacher, committed to communal responsibility and Islamic ethical standards.	4.1 Integrates in instructional planning and practice the cultural, linguistic, and socio-economic realities of the diverse local Muslim communities. 4.2 Practices professional and ethical standards in the delivery of Islamic Education in various settings (ALIVE, ISAL in BARMM, and traditional/private madāris).

4.4 Sample Certificate Program Mapping

Certificate in Islamic Education Courses	PO1	PO2	PO3	PO4
1. Foundations of Islamic Education	I			I
2. Teaching Arabic Language 1	I	I		
3. Islamic Education in the Qur'an and Sunnah	I			P
4. Teaching Arabic Language 2	P	P		
5. Teaching Islamic Values		P		P
6. Principles and Methods of Teaching in Islamic Education		D	D	

4.5 Certificate Program Course Descriptions

Course Title	Foundations of Islamic Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course introduces pre-service teachers to the historical, philosophical, theological, and psychological foundations of Islamic Education, with emphasis on their application in the Philippine context and on the role of the Islamic education teacher as a community-oriented leader. Anchored in Islamic faith, equity- and rights-based principles, cultural sensitivity, and ethical standards, the course develops learners' mastery of foundational Islamic education knowledge and a resilient, agentic professional identity committed to communal responsibility and ethical practice. The course explains the aims of Islamic Education in nurturing a Muslim Filipino identity and heritage while supporting national goals for quality and inclusive education. It explores Islamic perspectives on learner development, learning environments, positive discipline, classroom management, values, and ethics, alongside contemporary educational theories. Pre-service teachers articulate a personal philosophy of teaching, engage in community-oriented practice, and discuss research-based frameworks for teaching and learning. Assessment includes traditional, performance-based, and reflective tasks designed to

	assess conceptual understanding of Islamic Education.
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Course Title	Teaching Arabic Language 1
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s Skill/s	Basic Reading, Speaking, and Writing Skills in Arabic; Basic Qur'an Reciting Skills
Description	This course locates Arabic as a civilizational and liturgical language, introducing pre-service teachers to its history, civilizational influences, and contemporary relevance. It clarifies the varied purposes of Islamic education settings for teaching Arabic and proposes methodologies pertinent to these purposes. The course covers the Arabic language structure and its unique linguistic features; basic principles and guidelines for Qur'an reading and recitation; sightwords, common vocabulary, and civilizational terms; and basic communication templates for everyday situations. The course includes appropriate strategies for teaching Qur'an reading, basic vocabulary acquisition through text and through mundane or everyday contexts, as well as an introductory approach to basic communication skills acquisition. Assessments shall be varied, considering pre-service teachers' conceptual understandings and acquisition of teaching approach skills matching Arabic Language teaching purposes. These shall include traditional, performance-based, and portfolio-based methods. Pre-service teachers are likewise expected to craft and test basic instructional plans matching the varied purposes for Arabic language teaching.

Course Title	Islamic Education in the Qur'an and Sunnah
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course provides an in-depth exploration of the Qur'an and Sunnah, the primary sources of Islamic education, law, and ethics. Pre-service teachers analyze the exegeses (tafasir) and events relating to the descent of the revelations (asbab al-nuzul) of some verses (ayat) or chapters (suwar) of the Holy Qur'an pertaining to Islamic education. The study of Sunnah focuses on the sayings or words (sunnah qawliyyah), actions or deeds (sunnah fi'liyyah), and tacit or implied approvals (sunnah taqriyyah) of the Prophet Muhammad (peace be upon him), emphasizing the significant role of Islamic education in demonstrating behaviors that uphold the dignity of teaching as a profession. Through critical text analysis and dialogic interactions, pre-service teachers demonstrate applications of conceptual and contextual understanding of the Qur'an and Sunnah in Islamic Education. At the end of the course, pre-service teachers identify evidence-informed activities and strategies for culturally and contextually responsive teaching and learning in diverse Islamic Education settings.

Course Title	Teaching Arabic Language 2
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	Teaching Arabic Language 1
Description	This course builds on foundational Arabic language skills and the competencies acquired from Teaching Arabic Language 1 to deepen pre-service teachers' conceptual understandings of the language, enabling them to develop instructional plans and learning materials to support Arabic Language teaching for varied purposes and contexts. It covers instructional guidelines and corresponding strategies for Qur'an reading and recitation. Pre-service teachers likewise engage with multimedia learning materials and resources, and instructional strategies for

	advanced vocabulary acquisition; understanding of multiple Arabic texts, such as select Qur'an passages, Hadiths, and other literature; and acquisition of skills in oral and written communication. This enables them to enhance their competencies in instructional planning and teaching of the Arabic Language for varied purposes and contexts. Pre-service teachers are expected to prepare and try out instructional plans that aptly address the varied educational outcomes for Arabic language teaching. Pre-service teachers shall be assessed through traditional, performance-based, and portfolio-based methods.
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Course Title	Teaching Islamic Values
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares pre-service teachers to meaningfully integrate Islamic values into teaching and learning across diverse educational settings. Grounded in the principles of tawhīd, akhlāq, and khalīfah, the course promotes the holistic development of the learners' physical, intellectual, spiritual, moral, and socio-emotional dimensions. It builds the capacity of pre-service teachers to design faith-based, inclusive, and context-responsive instruction aligned with the foundations of Islamic education and professional ethical practice. The course strengthens competence in establishing nurturing, safe, and well-managed learning environments that encourage active learner participation and uphold respectful, non-violent approaches to classroom management. It engages pre-service teachers in designing developmentally appropriate lesson plans and applying varied instructional strategies that address the learners' diverse needs, abilities, interests, and experiences. The course uses traditional, self-evaluation, reflective, peer, and product-based assessments guided by clearly articulated rubrics to support continuous professional growth. The course emphasizes cultivating a reflective, ethical, and socially responsible professional identity among pre-service teachers.

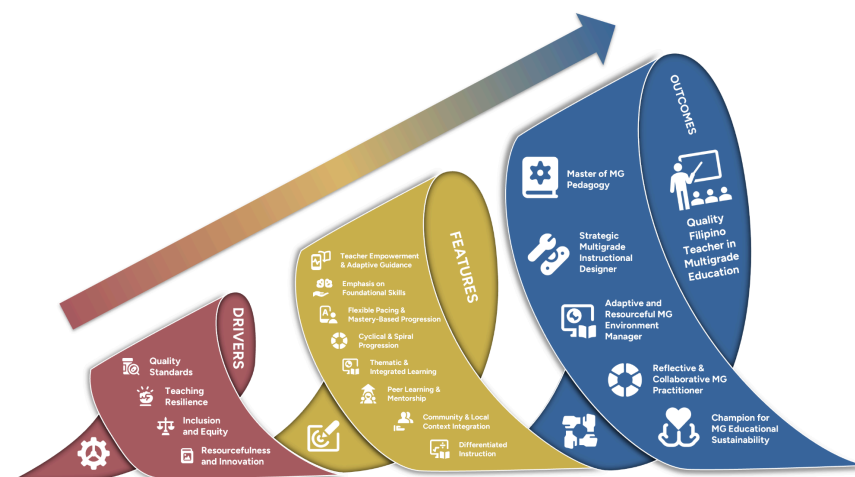
Course Title	Principles and Methods of Teaching in Islamic Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course covers the principles and pedagogical foundation of teaching Islamic Education. It explores key approaches, methods, and strategies for facilitating effective teaching and learning in Islamic Education, including multigrade pedagogical approaches, responsive to diverse classroom contexts. The course emphasizes learner-centered, values-based, peace-oriented, and culturally responsive pedagogies appropriate for diverse learners in various Islamic education contexts. In this course, Pre-service teachers demonstrate competencies in curriculum unpacking, examining constructive alignment, designing developmentally sequenced Islamic Education lessons, selecting appropriate teaching methods, and implementing varied assessment strategies. Attention is given to integrating Qur'anic teachings, Hadith, and real-life applications to promote holistic learner development—physical, intellectual, spiritual, moral, and socio-emotional. Through microteaching, action research, and service-learning experiences, pre-service teachers are prepared to become ethical, reflective, and competent educators committed to nurturing Muslim Filipino identity, cultural heritage, and lifelong learning. Assessment practices balance traditional, performance-based, product-oriented, and reflective approaches.

Annex E.5 Certificate in Multigrade Education

5.1 Certificate Program Description

The Certificate Program in Multigrade Education aims to develop highly competent Filipino multigrade teachers equipped with the knowledge, skills, and dispositions necessary to effectively manage and facilitate meaningful learning in multigrade classrooms. It addresses the unique challenges of teaching multigrade learners through a program focused on differentiated lesson design, pedagogical knowledge, classroom management, essential teacher qualities, and advocacy for sustainable multigrade education. The program integrates theory and practice, combining learner-centered resources, collaborative peer teaching and learning, field experiences (real and/or virtual), workshops, and continuous feedback. Assessment methods emphasize formative and summative tasks, performance-based evaluations, and portfolio development that showcases pre-service teachers' competence. By the end of the program, pre-service teachers are expected to design and implement developmentally appropriate multigrade lessons, apply effective instructional and assessment strategies, manage inclusive learning environments, and demonstrate professionalism, adaptability, and collaboration. Pre-service teachers will also serve as advocates for multigrade education, contributing to the sustainability and improvement of teaching and learning in diverse, resource-limited school contexts.

5.2 Certificate Program Framework



The framework for the Certificate Program in Multigrade Education delineates the essential components for fostering effective multigrade teaching and learning. This is represented in the curled ribbon in Figure 4. The framework is structured into three core areas: Drivers, Features, and Outcomes. The Drivers encompass essential elements considered in the conceptualization of the program in multigrade education. Specifically, the drivers refer to quality standards, teaching resilience, inclusive and equitable education, and resourcefulness & innovation. The Features of multigrade education emphasize teacher agency, flexible learning approaches, integrated instructional methods, and the incorporation of local context in community-centered education. The Outcomes highlight the program's goals for pre-service teachers to support diverse learners in multi-grade settings through the demonstration of: 1. mastery of MG teaching methods; 2. deliberate planning for differentiated instruction; 3. being a manager of the physical space, psychosocial atmosphere, and the usage of limited resources; 4. essential MG teacher qualities; and 5.

being a champion for the sustainability of MG education. This comprehensive framework is designed to prepare pre-service teachers to thrive in diverse educational environments. The curled ribbon-shaped framework symbolizes the interconnected nature of multigrade education. Its flowing waves and curves, rendered in three colors, represent the dynamic progression of curriculum drivers, features, and outcomes. This visual metaphor emphasizes the flexibility, adaptability, and innovation at the heart of multigrade education, weaving together its unique complexities.

5.3 Certificate Program Outcomes

Certificate in Multigrade Education Program Outcomes	Performance Indicators
1. Demonstrate pedagogical knowledge through flexible implementation of evidence-based multigrade instructional and assessment strategies.	1.1 Critically examine the theoretical foundations, historical context, and best practices in multigrade teaching and learning. 1.2 Examine the principles of differentiated instruction and assessment appropriate for multigrade settings. 1.3 Employ strategies that foster active learner engagement and participation across grade levels. 1.4 Adjust instructional strategies based on assessment data and learner feedback. 1.5 Use formative and summative assessments aligned with lesson objectives to effectively support diverse learners and monitor their learning progress.
2. Implement effective, evidence-based classroom management techniques that promote a positive, inclusive, and supportive multigrade learning environment.	2.1 Examine the principles of effective classroom management, specifically designed for multigrade environments. 2.2 Demonstrate effective classroom management strategies in a multigrade setting. 2.3 Facilitate learner-centered experiences that empower multigrade learners to take ownership of their learning. 2.4 Communicate learners' progress and classroom activities to stakeholders in a multigrade setting.
3. Design lessons for multigrade classes that incorporate developmentally appropriate content and learning resources.	3.1 Analyze the principles in lesson design and production of learning resources in multigrade settings. 3.2 Compare and contrast various models in designing multigrade lessons. 3.3 Design cohesive multigrade lessons that align with grade-level standards and objectives. 3.4 Develop MG lessons that apply the principles of lesson integration and differentiation of instruction and assessment. 3.5 Demonstrate efficient use of instructional time in the design of multigrade lessons.
4. Demonstrate qualities essential for effective multigrade teaching, including reflective practice, adaptability, collaboration, and ethical conduct.	4.1 Demonstrate a sustained commitment to empathy, equity, and inclusion to foster a respectful, supportive, and culturally responsive learning environment. 4.2 Commit to continuous professional development through systematic self-reflection, seeking constructive

	feedback, and the ongoing adaptation of instructional practices to enhance the quality and effectiveness of multigrade educational experiences continuously. 4.3 Manifest a growth mindset to navigate the complexities and challenges inherent in multigrade classrooms.
5. Advocate for multigrade education sustainability by actively mobilizing communities to support learners' holistic development and school success.	5.1 Exhibit positive qualities to advocate for stakeholders' support of a sustainable multigrade education. 5.2 Foster collaborative partnerships to sustain multigrade instruction.

5.4 Sample Certificate Program Mapping

Certificate in Multigrade Education Courses	PO1	PO2	PO3	PO4	PO5
1. Foundations of Multigrade Education	I	I		I	I
2. Multigrade Instructional Approaches	P	P	P	P	P
3. Assessment and Performance Monitoring in Multigrade Classes	P	P	P	P	P
4. Classroom Management and Organization in Multigrade Classes	P	P	P	P	P
5. Design of Multigrade Lesson Plans and Development of Learning Resources	D	D	D	P	I
6. Advocacy and Community Engagement for Multigrade Classes			P	P	P

5.5

Certificate Program Course Descriptions

Course Title	Foundations of Multigrade Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the theoretical and practical knowledge needed to succeed in multigrade classrooms. It examines the history, philosophy, and teaching methods of multigrade education, focusing on strategies to address the unique challenges of multigrade settings. Key activities include writing analytical essays, participating in group workshops, creating presentations, and analyzing videos to encourage critical thinking, peer collaboration, and practical problem-solving. Constructive feedback from both instructors and peers helps refine teaching practices, deepen theoretical understanding, and encourage reflective teaching. This holistic approach ensures that pre-service teachers have the versatility and confidence to excel in dynamic, diverse classrooms.

Course Title	Multigrade Instructional Approaches
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the core principles and practical, evidence-based strategies to design and manage effective instruction in diverse multigrade classrooms. Emphasizing inclusive, learner-centered, and context-responsive teaching, the course explores key instructional approaches, including differentiated instruction, small-group teaching, peer tutoring, and advanced techniques such as cross-age collaboration and managing independent learning stations. Furthermore, students examine innovative methodologies such as project-based, inquiry-based, and cooperative learning specifically tailored to mixed-age settings. The course also

	addresses critical management components, focusing on effective lesson pacing, activity sequencing, and seamless classroom transitions. Through active lectures, readings, interactive workshops, group discussions, and microteaching activities, students apply these instructional models to realistic multigrade scenarios. A combination of formative and summative assessments, including reflective journals and performance-based tools, measures their growing competency. Ultimately, pre-service teachers master pedagogical knowledge and successfully apply comprehensive multigrade instructional strategies that effectively engage all learners.
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Course Title	Assessment and Performance Monitoring in Multigrade Classes
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with the knowledge, skills, and appropriate attitudes to design, implement, and interpret effective assessments in multigrade classrooms. It emphasizes how to assess, monitor, and track student progress across grade level combinations, abilities, and learning needs. Topics include the principles of multigrade assessment, key concepts of formative, summative, and diagnostic assessment, performance-based assessments, learner portfolio systems, digital tracking tools (when and where applicable), and rubrics for continuous progress monitoring. It focuses on creating inclusive, differentiated tools that support varying literacy levels, abilities, and learning needs. The course emphasizes data-driven decision-making, enabling pre-service teachers to analyze assessment results, provide meaningful feedback, and adapt instruction to enhance learner outcomes. These competencies are central to effective multigrade instruction and align directly with the goals of the program. Learning experiences will combine theory and application through lectures, hands-on workshops, group discussions, and peer review sessions. Pre-service teachers will design assessment tools, analyze authentic classroom data, and reflect on case studies that mirror real-world multigrade settings. The course culminates in a final project, in which pre-service teachers develop a comprehensive assessment plan that integrates tools, performance tracking, feedback, and instructional adaptation, preparing them to support learners effectively in multigrade environments.

Course Title	Classroom Management and Organization in Multigrade
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	Classes
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course prepares pre-service teachers to design and implement effective classroom management and organizational systems specifically tailored to multigrade settings. It focuses on creating structured, inclusive, and engaging learning environments that address the cognitive, social, and emotional needs of multigrade learners. Pre-service teachers will develop strategies for managing space, time, and resources efficiently while fostering a positive classroom climate that promotes collaboration, respect, and a sense of belonging among all learners. Key topics include establishing routines, rules, and expectations; organizing flexible learning spaces; scheduling for multiple grade levels; and implementing behavior management and conflict resolution strategies. The course also emphasizes culturally responsive and motivational approaches that enhance engagement, self-regulation, and student responsibility and agency in multigrade contexts. Through a blend of lectures, hands-on activities, group discussions, practical workshops, and school visits (actual or virtual), pre-service teachers will gain both theoretical knowledge and applied experience. They will design classroom layouts, create behavior management plans, and analyze real-world scenarios to identify effective management techniques. Formative assessment of learning encompasses reflective journals, scenario-based analyses, classroom design outputs, role-playing and simulation exercises, and collaborative planning tasks. The course culminates in a final project to develop a comprehensive classroom management and organization plan suited to a multigrade environment.

Course Title	Design of Multigrade Lesson Plans and Development of Learning Resources
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course focuses on integrated curriculum design, where pre-service teachers thoroughly examine various integration models, including thematic, project-based, and skill-based approaches. It balances theory and practice, guiding students from curriculum theory to hands-on application through the design of thematic units, lesson planning, and curriculum mapping. Recognizing the unique needs of multigrade settings, pre-service teachers gain direct, practical experience developing innovative, differentiated, flexible, and low-cost learning resources. These materials specifically support independent learning and peer tutoring across grade levels. Through case studies, workshops, and collaborative projects, students design and evaluate integrated learning experiences. Instruction features engaging lectures, interactive group work, rich discussions, and reflective writing, fostering an active, student-centered learning environment. Students receive ongoing feedback from instructors and peers, which refines their skills and deepens their understanding. The course employs both formative and summative assessments, including project-based assignments, presentations, and reflective writing, all designed to demonstrate mastery in creating a truly integrated and resource-rich multigrade learning environment.

Course Title	Advocacy and Community Engagement for Multigrade Classes
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Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Advocacy and Community Engagement for Multigrade Classes is a professional education course designed to equip pre-service teachers with the knowledge, skills, and ethical dispositions necessary to design and implement community-responsive advocacy initiatives that strengthen multigrade teaching and learning. Anchored in the <i>Reframed</i> Program Outcomes, the course develops competencies in using assessment data to inform evidence-based instructional strategies, establishing inclusive and community-supported classroom management practices, collaborating with parents and stakeholders to develop localized and culturally responsive learning resources, and demonstrating reflective and professional conduct aligned with ethical standards. The course further emphasizes the design of sustainable partnership and advocacy programs that mobilize community support for learners' holistic development and academic success. It is aligned with the Philippine Professional Standards for Teachers (PPST) Beginning Teacher Indicators, particularly Domains 2 (Learning Environment), 5 (Assessment and Reporting), 6 (Community Linkages and Professional Engagement), and 7 (Personal Growth and Professional Development), ensuring that future multigrade teachers are prepared to foster positive school–community relationships and uphold the dignity and integrity of the teaching profession.

Annex E.6 Certificate in Special Needs and Inclusive Education

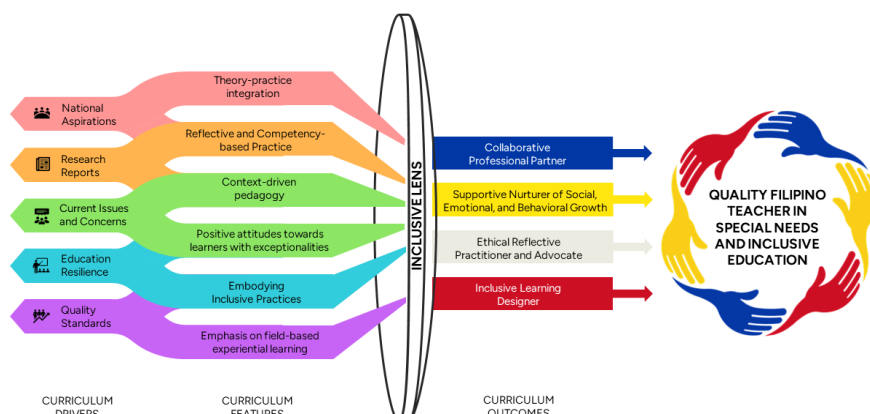
6.1 Certificate Program Description

The Certificate in Special Needs and Inclusive Education (SNIEd) is an undergraduate certificate program designed to augment the preparation of pre-service teachers whose primary training is in their content specialization. It strengthens their theoretical and pedagogical competencies in creating inclusive learning environments within general education classrooms. The program supports a shift from basic awareness to the actual enactment of inclusive practices through field-based experiential learning, theory–practice integration, and context-responsive pedagogy.

Anchored in government mandates and global quality standards, the curriculum responds to pressing needs such as education resilience and the shortage of inclusive education practitioners. It emphasizes the demonstration of inclusive strategies, instructional adaptations, and positive behavior support appropriate to diverse learners. Through an inclusive education lens, the program prepares pre-service teachers to become ethical advocates, inclusive learning designers, and reflective practitioners who serve as supportive nurturers and collaborative partners in general education contexts. Graduates of this certificate program are equipped with foundational competencies to uphold inclusive education principles in their respective subject areas.

Note: Holding a Certificate in SNIEd provides opportunities to do the teaching internship in inclusive schools or schools with special curricular programs.

6.2 Certificate Program Framework



The curriculum framework is structured around three interrelated components—Curriculum Drivers, Curriculum Features, and Curriculum Outcomes—aligned through an Inclusive Education Lens ensures equity, relevance, and responsiveness in SNIEd. The certificate program is driven by government mandates, national and international policies, directions, research evidence, current issues and concerns, emerging strategies on education resilience, and quality standards, which collectively ground the program in legal, empirical, and professional imperatives. These drivers lead to the features that emphasize field-based experiential learning, theory–practice integration, reflective and competency-based practice, context-driven pedagogy, and the development of inclusive attitudes toward learners with exceptionalities. Viewed through the inclusive lens, these features lead to defined curriculum outcomes that develop pre-service teachers who are ethical advocates, reflective and responsive practitioners, inclusive learning designers, supportive nurturers of learners’ holistic development, and collaborative professional partners. The convergence of these elements produces the Quality Filipino Teacher in Special Needs and Inclusive Education, equipped to respond effectively to diverse learners, varied contexts, and the evolving demands of inclusion.

6.3 Certificate Program Outcomes

Certificate in Special Needs and Inclusive Education Program Outcomes	Performance Indicators
1. Ethical Reflective Practitioner and Advocate Adhere to ethical principles, exercise professional accountability, pursue reflective growth consistent with the current professional standards, and advocate for the rights of learners.	1.1 Demonstrate ethical conduct and professional responsibility, including confidentiality, fairness, and respect for diversity. 1.2 Engage in reflective and reflexive practice to improve instructional effectiveness and uphold ethical standards. 1.3 Align educational practice with legal mandates and professional standards, especially those related to inclusive education and learner protection. 1.4 Advocate for equity, access, and justice through initiatives supporting learners with exceptionalities and those in marginalized contexts. 1.5 Pursue lifelong learning through participation in professional development activities (e.g., research, conferences, learning communities).

2. Inclusive Learning Designer Design and implement individualized, inclusive, differentiated, and developmentally-appropriate teaching and learning experiences grounded on content mastery and research-based principles.	2.1 Develop learner-centered lesson plans utilizing UDL principles and differentiated strategies. 2.2 Design and adapt instructional materials that are developmentally appropriate, culturally responsive, and accessible. 2.3 Integrate assistive technology and digital tools to enhance participation and remove learning barriers. 2.4 Create safe, inclusive, and respectful learning environments that foster collaboration and belonging. 2.5 Apply research-based and evidence-informed teaching strategies in instructional decision-making. 2.6 Demonstrate deep content mastery by translating complex subject matter into manageable, engaging, and relevant learning experiences.
3. Supportive Nurturer of Social, Emotional, and Behavioral Growth Create and sustain safe, inclusive, and supportive environments that nurture learners' overall growth and development.	3.1 Foster inclusive, safe, and supportive learning environments that honor individual differences. 3.2 Recognize and respond to diverse learner profiles across educational settings. 3.3 Promote psychological safety and community responsiveness through classroom climate design. 3.4 Identify signs of adversity and facilitate appropriate support or referrals. 3.5 Apply proactive, evidence-based classroom behavior management strategies that emphasize positive support. 3.6 Facilitate student engagement and build resilience through meaningful learning experiences.
4. Collaborative Professional Partner Collaborate with families, fellow educators, support service providers, and community partners to support inclusive education and promote holistic learner development.	4.1 Communicate clearly and respectfully to foster collaboration and mutual understanding. 4.2 Engage in collaborative consultation with families, educators, and support service providers to address learner needs. 4.3 Participate in shared decision-making processes to develop inclusive interventions and support plans. 4.4 Coordinate with community partners to strengthen school-home-community linkages for learner development.

6.4 Sample Certificate Program Mapping

Certificate in Special Needs and Inclusive Education Courses	PO1	PO2	PO3	PO4
1. Understanding Learners with Exceptionalities I: Developmental Disabilities	I	I	I	I
2. Understanding Learners with Exceptionalities II: Gifted and Talented Learners; Learners with Social, Emotional, and Behavioral Difficulties	I	I	I	I
3. Understanding Learners with Exceptionalities III: Physical and Sensory Impairments	I	I	I	I
4. Curriculum and Innovative Pedagogies for Inclusive Education	P	P	P	P

5. Utilizing Individualized Learning and Support Plans	P	P	P	P
6. Field Experience in Special Needs and Inclusive Education	D	P	P	P

6.5 Certificate Program Course Descriptions

Course Title	Understanding Learners with Exceptionalities I: Learners with Developmental Delays and Disabilities
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course is designed to complement the development of pre-service teachers' competencies in supporting learners with developmental delays and disabilities through the augmentation of their content specialization training with inclusive practices. It provides a comprehensive knowledge of various developmental disabilities, including Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, Learning Disabilities, and Language and Communication Disorders. The course highlights how pre-service teachers can design and implement inclusive instructional strategies, adaptations, and positive classroom management strategies rooted in the cultivation of safe and supportive learning environments that nurture and inspire learner participation. The course will highlight the principles of Universal Design for Learning (UDL) and differentiated instruction, to plan for accessible and learner-centered instruction. Through teaching and learning activities such as lectures, guided readings, case analyses, collaborative planning tasks, and reflective practice, the pre-service teachers can strengthen their capacity to design differentiated learning experiences related to their content specialization. At the end of the course, pre-service teachers are expected to craft accommodation or adaptation plans for instruction and assessment aligned with their content specialization and the needs of learners with developmental delays and disabilities included in the regular classroom setting.

Course Title	Understanding Learners with Exceptionalities II: Gifted and Talented Learners; Learners with Social, Emotional, and Behavioral Difficulties
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course equips pre-service teachers with an understanding of learners with giftedness and talents and learners with social,

	emotional, and behavioral difficulties. It focuses on the fundamental concepts of giftedness and talents and of social, emotional, and behavioral difficulties. This includes identification of these two groups of learners and their characteristics; likewise, different areas of giftedness and categories and types of gifted learners will be given focus. The course covers internalizing and externalizing behaviors of learners with social, emotional, and behavioral difficulties. Discussions include strategies to nurture gifts and talent like acceleration, enrichment, project-based learning, differentiated instruction, technology-enhanced activities, and research opportunities; and curriculum models in enhancing gifts and talents like Renzulli's Schoolwide Enrichment Model, Gardner's Multiple Intelligence Model, and Gagne's Differentiated Model of Giftedness, among others. The course explores behavior management strategies and approaches to address problem behaviors in the classroom. The pre-service teachers will be engaged in discussions, case analysis, journal article critiques, film reviews, simulation activities, and workshops. At the end of the course, they will write case reports about gifted and talented learners in the inclusive classroom, and will develop a behavior case file, which will include a behavior description and appropriate behavior modification strategies.
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Course Title	Understanding Learners with Exceptionalities III: Learners with Physical and Sensory Impairments
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	The course introduces preservice teachers to the characteristics, access needs, and educational implications of learners with physical, sensory, and related health impairments. The course builds foundational knowledge on conditions such as orthopedic impairments, cerebral palsy, motor disorders, chronic health conditions, blindness, and deafness or hard-of-hearing, emphasizing how these exceptionalities influence mobility, communication, engagement, and participation in inclusive classrooms. Pre-service teachers examine learners' strengths and support needs to inform curricular adaptations, instructional planning, and inclusive placement decisions. The course highlights principles of accessible and developmentally appropriate instruction, including strategies for adapting lessons, designing multisensory and health-responsive learning activities, and creating barrier-free physical and social environments. Attention is given to assistive technologies, communication supports, and environmental modifications that promote independence, safety, and meaningful participation. The course also underscores the importance of collaboration with families, allied professionals, and community partners in developing coordinated support systems for learners with physical and sensory impairments. Through case studies, guided observations, and reflective tasks, preservice teachers learn to design responsive instructional materials, anticipate access challenges, and cultivate inclusive classroom practices that uphold dignity, equity, and full participation for learners with these exceptionalities.

Course Title	Curriculum and Innovative Pedagogies for Inclusive Education*
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with foundational and applied knowledge of inclusive curriculum design and innovative pedagogical frameworks for General Basic Education. It emphasizes Universal Design for Learning (UDL), Differentiated Instruction (DI), and Multi-Tiered Systems of Support (MTSS) as key approaches to planning, delivering, and assessing instruction for learners with exceptionalities. The course highlights collaborative planning, curriculum mapping, and instructional decision-making aligned with PPST indicators and K to 12 standards. Learning experiences include case-based analysis of inclusive classroom scenarios, UDL-based planning, differentiated lesson design, peer critique, workshops, reflective tasks and field-based microteaching. Pre-service teachers engage in peer critique, collaborative workshops, reflective journaling, and field-based microteaching with structured feedback loops. Assessment is performance-based and practice-oriented, including lesson plan analysis, microteaching demonstrations with feedback, case analysis, classroom environment design, policy critiques, video analysis with reflective commentary, and collaborative advocacy projects. These tasks strengthen theory-to-practice connections and develop professional judgment. By the end of the course, pre-service teachers will be able to analyze and adapt general education curricula, design tiered interventions, and foster inclusive learning environments grounded in evidence-based practice.

Course Title	Utilizing Individualized Learning and Support Plans
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	This course equips pre-service teachers with foundational knowledge and practical skills in interpreting and implementing individualized learning and support plans for learners with exceptionalities. It enables them to understand the legal frameworks, diagnostic-prescriptive principles, and collaborative processes that underpin plans, including Individualized Education Plans (IEPs), Programs of Developmentally-Sequenced Priorities (PDSPs), Individual Learning Plans (ILPs), Individualized Family Service Plans (IFSPs), Individual Transition Plans (ITPs), Functional Behavior Assessments (FBAs), Behavior Intervention Plans (BIPs), and other support plans. Pre-service teachers will explore how to interpret assessment data, understand the components and purposes of plans, and apply evidence-based strategies to support diverse learners in inclusive settings. Through case study analyses, plan interpretation exercises, simulated IEP team meetings, and classroom observations, they will develop competencies in translating written plans into actionable classroom practices, implementing behavioral strategies, monitoring learner progress through systematic data collection, and communicating effectively with specialists and families. At the end of the course, pre-service teachers will create an implementation portfolio that features their analysis of individualized plans, evidence of collaborative planning processes, progress monitoring documentation, and reflections on adapting classroom practices to meet the needs of individual learners.

Course Title	Field Experience in Special Needs and Inclusive Education
Course Credits	3 units
Contact Hours	51-54 hours
Prerequisite/s	
Description	Field Experience in Special Needs and Inclusive Education is an experiential course that immerses pre-service teachers in diverse inclusive education contexts to develop foundational competencies in working with Learners with disabilities (LWD) and gifted learners. The course introduces pre-service teachers to the principles and practices

	of Special Needs and Inclusive Education through guided and systematic observation in SNED centers, Inclusive Learning Resource Centers (ILRCs), regular inclusive classrooms, community-based programs, schools with special curricular programs (SCPs), and other relevant settings, with flexible modalities, including virtual observation, when access is limited. Learning occurs through structured observation tasks, reflective journaling, field notes, mentor-guided discussions, and seminar dialogues that focus on learners' characteristics, learning behaviors, environmental supports, inclusive strategies, and stakeholder roles. Pre-service teachers do not conduct formal teaching but engage in reflective analysis and professional conversations with special education teachers and related professionals to deepen their understanding of inclusive practice across contexts. At the end of the course, pre-service teachers submit a Field Experience Portfolio that provides documented evidence of their observational competence, reflective practice, and inclusive professional dispositions across diverse inclusive education settings.
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Annex F
ICT Competency Standards for Teachers % CHED

Annex G
Sample Syllabus Guide and Link to Repository of Syllabus Guides Compendium

Link to the Compendium of Syllabus Guides in the Professional Education: <https://tec.gov.ph/rc-profedc/>

Link to the Compendiums of Syllabus Guides in the BEd Program: <https://tec.gov.ph/rc-bed/>

Link to the Compendium of Syllabus Guides in the Certificate Programs: <https://tec.gov.ph/rc-cp/>

Bachelor of Education Major in English

SYLLABUS GUIDE FOR LANGUAGE ACQUISITION AND LEARNING IN MULTILINGUAL CONTEXTS

Course Credits	3 units	Contact Hours	
Prerequisite/s			
Course Description	This course aims to develop a critical and comprehensive understanding of first- and second-language acquisition and their application to effective English language teaching in multilingual and multicultural contexts. Pre-service teachers examine major theories (behaviorist, innatist, cognitive, interactionist, connectionist, sociocultural, constructivist, translanguaging) and key perspectives, such as Krashen's Five Hypotheses, Long's Interaction Hypothesis, and Lenneberg's Critical Period Hypothesis. The course further explores the complex interactions among cognitive, affective, social, and environmental factors that affect language acquisition and learning in multilingual contexts. Through lecture-discussions, research article reviews, case studies, and reflective tasks, pre-service teachers bridge theory and practice by completing critiques, analyses, and observation reports. Assessments include quizzes, performance tasks, and reflective journals that evaluate pre-service teachers' ability to analyze principles in English language acquisition and learning in multilingual contexts.		

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
[PO 1] Demonstrate content mastery in English language and literature through critical analysis, application, cultural appreciation, and innovative instruction.	[CLO 1] Compare and contrast various definitions of language through the lens of SLA theories	[1.1.1]
	[CLO 2] Evaluate major theories and hypotheses of language acquisition-learning by formulating an SLA theory informed by personal language learning	[1.1.1] [1.2.1] [2.2.1]
[PO 2] Communicate clearly and appropriately in		

oral, written, and multimodal communication, responsive to varied contexts and audiences.	experiences [CLO 4] Apply SLA theories and central hypotheses in analyzing instructional situations, and English language teaching methods in multilingual contexts	[1.1.1] [1.2.1] [4.5.1]
[PO 5] Promote culturally responsive and diversity inclusive interdisciplinary approaches in English language and literature education. [PO 6] Model compassionate disposition and self-efficacy in teaching English language and literature	[CLO 3] Critically examine cognitive, affective, social, and environmental factors influencing L1/L2 acquisition in multilingual contexts and relate these to learner diversity. [CLO 5] Apply insights from SLA theories to critique the Philippine and other Southeast Asian nations' language policy. [CLO 6] Synthesize understanding of the various SLA theories and their pedagogical implications through their performance in a LET-like test and insights articulated in the reflection blog/vlog portfolio.	[1.1.1] [1.2.1] [2.2.1] [1.1.1] [1.2.1] [7.4.1] [7.4.1]

Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 1] Compare and contrast various definitions of language through the lens of SLA theories	LET-Like (MC Test) A thirty-item, five-option multiple-choice test, similar in format to the Licensure Examination for Teachers (LET), that assesses pre-service teachers' critical understanding of the various definitions of language across varying theoretical perspectives. Pre-service teachers provide a one to two-sentence explanation/reason for their answer, showing their ability to connect the chosen answer to central principles of the relevant linguistic theory (e.g.,	Demonstrate a clear and accurate understanding of key theoretical perspectives on the various definitions of language by selecting the correct response to LET-like multiple-choice items and providing a concise, theory-based justification for each answer.

Course Learning Outcomes	Summative Assessment Task	Performance Standard
	Behaviorism, Innatism, Cognitivism, Translanguaging, etc.)	
[CLO 2] Evaluate major theories and hypotheses of language acquisition-learning by formulating an SLA theory informed by personal language learning experiences	My Language Acquisition-learning Theory An essay that demonstrates pre-service teachers' ability to formulate and critique SLA hypothesis or theory based on the criteria for testing the soundness of a theory.	Demonstrate a critical and well-reasoned understanding of language acquisition and learning by constructing a personal SLA theory grounded in relevant theories and key hypotheses, and supported by evidence from their own ESL learning experience. The soundness of the theory will be evaluated based on established criteria.
[CLO 3] Critically examine cognitive, affective, social, and environmental factors influencing L1/L2 acquisition in multilingual contexts and relate these to learner diversity.	An ESL Learner Case Analysis A 3-5 page paper analyzing the cognitive, affective, social, and environmental factors influencing a selected learner's success or difficulty in learning English as a second language. The analysis concludes by explaining how these factors reflect learner diversity and their implications for language teaching.	Analyze cognitive, affective, social, and environmental factors influencing an ESL learner or group in a multilingual classroom by relating these factors to learner diversity, and developing a well-reasoned, evidence-based strategy/ies to effectively support their learning needs.
[CLO 4] Apply SLA theories and central hypotheses in analyzing instructional situations, and English language teaching methods in multilingual contexts	My SLA Teaching Identity A critical reflection paper in which pre-service teachers identify the SLA-based teaching approach they align with and justify their choice using relevant theories, research, and their own ESL learning experiences.	Critically select and justify a preferred SLA-informed teaching proposal for multilingual contexts by integrating SLA theories and empirical research findings to support their evaluation, showing the ability to cite and synthesize relevant studies to justify their choice, and articulating a coherent personal teaching stance demonstrating how their beliefs influence instructional decisions in multilingual classrooms.

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 5] Use insights from SLA theories to critique language policy in the Philippines and other Southeast Asian nations.	Comparative Analysis of Southeast Asian Language-in-Education Policies A critical comparison of the language policies in two selected Southeast Asian countries using a table with the following headings: 1) Policy Goals; 2) Language(s) of Instruction; 3) Implementation Approach; 4) Language Learning Principles and SLA Theories that align with/support the policy; 5) Strengths and limitations of the policy in light of relevant SLA theories and principles	Demonstrate mastery in applying SLA theories to critically analyze Philippine and other Southeast Asian language policies by creating a comprehensive, accurate, and well-justified comparative chart. The chart should show a clear understanding of policy goals, instructional approaches, underlying assumptions, and relevant SLA theory alignment
[CLO 6] Synthesize understanding of the various SLA theories and their pedagogical implications through their performance in a LET-like test and insights articulated in the reflection blog/vlog portfolio.	LET-Like Test and Portfolio of Reflective Blog or Vlogs An evaluation of pre-service teachers' mastery of SLA theories, key hypotheses, and related pedagogical proposals through a 30-item LET-like test and a multimedia portfolio of individual vlog reflections created throughout the course. The portfolio culminates in a synthesized summary highlighting professional growth, theoretical insights from SLA, and implications for multilingual education practice.	Demonstrate a critical understanding of SLA theories and their implications to ELT in multilingual contexts 1) through their performance in the LET-like final examination, and by synthesizing the blog/vlog reflections submitted throughout the course into a coherent, evidence-based portfolio that articulates implications for their future teaching practice. Blog/vlog Rubrics may include the following criteria: 1) Conceptual Understanding of SLA Theories (25%); Critical Reflection and Analysis (25%); Theory–Practice Connection (20%); Coherence, Organization, and Clarity (15%); and Communication and Presentation (Blog/Vlog-Specific) (15%).

Note: TEIs may add additional matrices to reflect alignment with their institutional outcomes.

Suggested Learning Plan

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
1-2	Compare and contrast various definitions of language anchored on relevant SLA theories	6. Syllabus review and setting of expectations 7. Overview of the Course Content I. Definitions of Language across theoretical perspectives Key Definitions of Language Some key definitions/views of language anchored on SLA theories: 4.3 Language as a set of verbal behavior and learned through imitation, practice, and reinforcement (Behaviorist) 4.4 Language as an innate mental grammar composed of rules that allow infinite sentence production (Innatist). 4.5 Language as a socially situated tool for communication, where meaning depends on cultural norms and context—not just grammar (Communicative). 4.6 Language as action – a means to perform communicative acts	Learning Task Options 4.4 Visualization and Concept Mapping Pre-service teachers create a visual representation (e.g., a Venn diagram or a table) that presents the definitions of the language, their proponents, and an example in their local context, observation, or experience. 4.5 “A Tale of Three Teachers.” Instructions (Pair Work): In pairs, discuss how each teacher’s lesson organization reflects their underlying belief about language. Identify the view of language that informs each approach and explain your reasoning. Teacher 1: Lessons are organized by parts of speech (e.g., nouns, pronouns, verbs). Pre-service teachers are expected to master grammatical rules and forms. 7. What does this suggest about the teacher’s view of language? (<i>This organization suggests</i>	SA1_LET-Like (MCTest) that tests pre-service teachers’ critical understanding of the various definitions of language based on varying theoretical perspectives. (See sample item below) Pre-service teachers provide a one to two-sentence reason for their answer. A bilingual learner answers a science question by mixing English and Filipino in one sentence. Using García’s view of language (Translanguaging theory), what does this tell us about how the learner uses language? A. The learner is confused and randomly switches between English and Filipino. B. The learner is strategically using one combined set of language resources to express her/her ideas. C. The learner is showing that English should be strengthened first before learning another language. D. The learner knows little English and shifts to a	[12] [13] [22]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		through context and inference (Pragmatic/Discourse) 4.7 Language as a cultural tool for thinking and social interaction; social interaction drives language learning (Socio-cultural) 4.8 Language as a tool for empowerment and social change, shaped by power relations (Critical /Ideological). 4.9 Language as a single, flexible linguistic repertoire that multilinguals use dynamically to make meaning. Named languages (e.g., English, Filipino, Bisaya) as social constructs, not cognitive realities. (Translanguaging/Post-structuralist))	<i>that the teacher sees language as a set of rules.)</i> Teacher 2: Lessons are organized by language functions (e.g., greeting, giving directions, agreeing/disagreeing). Pre-service teachers engage in role plays and simulations to demonstrate their ability to perform communicative acts in specific situations. What does this suggest about the teacher's view of language? <i>(This organization suggests that the teacher see that language is a socially situated tool for communication.)</i> Teacher 3: Lessons are organized around practical tasks for immigrant learners (e.g., completing job applications, simulating voting, interacting with authorities). F. What does this suggest about the teacher's view of language? <i>(This organization suggests that the teacher sees language as a functional, communicative, socially and politically situated potent tool for gaining human agency.)</i>	totally different language to get his/her message across. E. The learner is breaking grammar rules by switching between two languages to express her/his thoughts. ANSWER: B REASON: García theorized that language is a single, flexible, integrated linguistic repertoire that multilingual speakers use strategically to make meaning. Translanguaging theory rejects the idea of strictly separate languages in the mind, and views "code-switching" or "code-mixing" as simply a natural deployment of the full linguistic repertoire. Blog/Vlog Reflection 1 - Suggested length of the vlog: 2-3 minutes - Suggested length of the blog: 200-300 words Provide pre-service teachers with the rubrics for evaluating their vlogs. The prompt for this Blog/Vlog reflection may be lifted from the	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			Synthesis: After the class discussion, pre-service teachers will reflect on one or more of the following questions: • Which view of language best aligns with multilingual realities? • Which of the three teachers most reflects your own emerging teaching identity? Why? • Think of your best language teacher. Which of the three does she most resemble? Why? <i>These questions also serve as prompts for Blog/Vlog Reflection 1.</i>	<i>Synthesis questions.</i>	
3	Explain the functions of theories. Apply evaluation criteria to assess the strengths and limitations of SLA theories	4. Definition, Functions, and Evaluation Criteria of Theories 4. Definition of theory (general and in education/SLA) 5. Functions of theories: 7. to explain 8. to predict 9. to guide practice 10. to organize knowledge 6. Evaluation criteria	Options: I. Think-Pair-Share: Test the Claim Using a Think-Pair-Share strategy, pre-service teachers are given statements about language learning and decide individually whether each qualifies as a theory. They then explain their reasoning to a partner, reach a joint conclusion, and share it with the class. The activity serves as a springboard for a teacher-led discussion on the	Test the Claim Essay Instructions: Choose one claim related to language learning (examples provided below) and evaluate whether it qualifies as a theory based on the criteria learned in class. Sample claims (pre-service teachers choose one): 2.6 “Children learn languages faster than adults.” 2.7 “Exposure is enough for successful language	[14] [19] [21] [25] <i>The video [40] summarizes key theories in child language acquisition. The video includes the evaluation of the theory.</i> Critique Articles: [19] [53]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		- testability - empirical support - Clarity - Scope - usefulness	definition, functions, and evaluation criteria of theories. II. Critique deep dive: A flipped activity The class will be divided into two groups. - Group 1 reads A Critical Review of Krashen's Input Hypothesis: Three Major Arguments (Liu, 2015). - Group 2 reads A Review Study of Interlanguage Theory (Al-khresheh, 2015). At the next meeting, pre-service teachers will be paired so that each pair includes one pre-service teacher who reads the critique of Krashen and one who reads the critique of Interlanguage Theory. Each pair will discuss and share key points using the following guide questions: - What are the key claims of the theory? - What are the major criticisms? - What criteria were used to evaluate the theory? - Do you agree with the evaluation? Why or why	learning.” 2.8 “Motivation drives language acquisition.” Expected Output: A 300–350-word essay answering the following guiding questions: - Does the claim meet the definition of a theory? Why or why not? - If so, which functions of a theory does it fulfill? - Evaluate the claim using at least three criteria (e.g., empirical support, testability, explanatory power, scope, and usefulness in ELT). - Conclude whether the claim is a hypothesis, generalization, or emerging theory. Briefly explain why.	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			not? Output: Pairs will produce a matrix with the following column headings: Output: A matrix with the following column headings: key claims/ Evaluation/ critique/My Beliefs		
4-8	Compare and contrast major theories of language acquisition and discuss research that supports these theories Evaluate central hypotheses in language acquisition-learning and their pedagogical implications for ELT	Theoretical Foundations/Perspectives in SLA A. Behaviorist (Skinner); Innatist/Nativist (Chomsky); Communicative/Sociolinguistic (Hymes); Sociocultural /Interactionist (Vygotsky); Acculturation (Schumann; Berry); Pragmatic (Austin, Searle, Grice) B. Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency -CALP (Cummins) C. Ideological (Freire, Auerbach) D. Translanguaging / Translingual Perspective (Ofelia García; Li Wei)	Teacher-led discussion: Using a Think-Pair-Share strategy, pre-service teachers are given statements about language learning and decide individually whether each qualifies as a theory. They then explain their reasoning to a partner, reach a joint conclusion, and share it with the class. The activity serves as a springboard for a teacher-led discussion on the definition, functions, and evaluation criteria of theories.	SA2_My language acquisition-learning theory (Formulating and evaluating an SLA theory) Drawing on their personal experience learning English or another second language, pre-service teachers formulate their own SLA hypothesis or theory, which may be informed by an established SLA theory, e.g., innatism, or by a combination of several theories. Pre-service teachers evaluate each other's theories using the criteria for assessing the soundness of a theory discussed in Week 3. Blog/Vlog Reflection 2 - Suggested length of the vlog: 2-3 minutes - Suggested length of the blog: 200-300 words (Provide pre-service teachers with the rubrics	[12] [13] [14] [16] [18] [19] [28] [31] [33] [35] [36] [37] [41] [48] [50] [51] [52]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		Key Hypotheses in SLA: • Krashen's Five Hypotheses (Acquisition–Learning Hypothesis; Monitor Hypothesis; Natural Order Hypothesis • Input Hypothesis and Affective Filter • Contrastive Analysis Hypothesis (Lado) versus Interlanguage theory (Selinker) • Long's Interaction Hypothesis • Lennerberg's Critical Period Hypothesis • Schmidt's Noticing Hypothesis		for evaluating their vlogs. Sample prompt: <i>How has your view of language, language learning, and teaching changed after discussing SLA theories and key hypotheses? Describe the changes in your perspective.</i> Provide pre-service teachers with the rubrics for evaluating their vlogs. See suggested criteria in Blog/Vlog Reflection 1.	
9-10	Examine factors influencing L1 and L2 acquisition in multilingual settings.	IV. Individual Differences in Second Language Learning: • Age (Critical Period Hypothesis) • Language Learning Aptitude • Personality • Attitudes and Motivation • Motivation in the Classroom	Modified Jigsaw Activity: Pre-service teachers are grouped into 7 groups (one expert group for each factor). Each group is assigned one of the 7 factors in advance. After reading their assigned factor, the group will meet in class to thoroughly discuss their topics and clarify any misconceptions or confusion (10 to 15 minutes). The Expert group discussion should be guided by the following: 1) What does the concept/factor mean? 2) How does it influence L2 learning? 3) What research findings support it?	SA3_ESL Learner Case Analysis (may be done individually, in pairs, or small groups) 3.1 Pre-service teachers choose one real or hypothetical learner from a multilingual environment (e.g., a foreign student in a Philippine English classroom or an elementary school pupil who is struggling to learn English). 3.2 Prepare a 3-5 page case analysis describing the learner's linguistic profile	[12] [18] [23] [27] [28] [54]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		- Identity, Ethnic Group Affiliation, and Learner Agency - Learning Styles and Learner Beliefs	Each Expert Group member is then assigned a letter (e.g., if there are seven experts in the group, one is assigned A, another B, and so on through G). All A's from the 7 expert groups will form a team, consisting of an expert from one of the 7 Expert groups. Each expert is given 5 minutes to explain his/her factor to the other team members. While the expert explains, group members fill out a table based on the questions above. The first column heading is the factor name, with a short definition/description. The second column is How it Influences L2 Learning. The third column heading is Two Research Findings that support it. The fourth column is a Personal Response or Reflection based on the question: How will understanding how individual differences affect SLA help you as a future English teacher? VIDEO Viewing: The Case of Genie Pre-service teachers will identify the various factors that affected Genie's language acquisition and learning.	and analyzing the cognitive, affective, social, and environmental factors that may have contributed to their success or difficulty learning English as a second language. 3.3 The case analysis ends with a synthesis of the key factors affecting the learner's SLA, and concludes by explaining how these factors illustrate learner diversity and its implications for language teaching. See the sample case analysis format below. https://bit.ly/3N1LIk0 Blog/Vlog Reflection 3 7.6 Suggested length of the vlog: 2-3 minutes 7.7 Suggested length of the blog: 200-300 words Provide pre-service teachers with the rubrics for evaluating their vlogs. See the suggested criteria in Blog/Vlog Reflection 1. Sample prompt: 1. <i>Reflect on a second language learning</i>	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
				<i>experience you have had or observed.</i> 2. <i>Identify and discuss at least three factors—such as age, personality, motivation, learning style, or identity—that influenced the learner’s success or difficulty. How do these factors interact in multilingual settings, and what implications do they have for your future teaching practice?</i> Provide pre-service teachers with the rubrics for evaluating their vlogs. See the suggested criteria in Blog/Vlog Reflection 1.	
10-14	Critically evaluate and justify their preferred language teaching proposal in multilingual contexts based on SLA theories, empirical research findings, and their developing identity as pre-service language teachers	V. Theory-informed approaches to ESL and EFL teaching A. These categories are lifted from Lightbown & Spada (2021). 7. 1) <i>Get it right from the beginning</i> (e.g., Grammar translation approach, audiolingualism, and grammar-based approaches. Theoretical bases: Behaviorism; Cognitivism	Options: 1. Comparative Reflection Matrix (Theory–Proposal–Practice Alignment Chart) Pre-service teachers complete a structured matrix where they plot the following: - Theory-based language teaching proposal - SLA Theories that support the teaching approach - Key research that supports or questions the proposal	SA4_My SLA-Aligned Teaching Identity: A Critical Reflection Paper B. Pre-service Teachers will choose one or a combination of the English language teaching proposals by Lightbown and Spada, and any of the post-method multilingual pedagogies they feel most aligned with as future language teachers, e.g., a combination of "Get two for one (CLIL/CBLT)" and	[03] [05] [07] [13] [18] [24] [38]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		8. <i>Just listen ... and read</i> (e.g., Comprehension-based instruction, Drop Everything and Read (DEAR), Input flood). Theoretical bases: Krashen's Input Hypotheses (Input flood) 9. <i>Let's talk</i> (e.g., Communicative Language Teaching, Task-based Language Teaching, Dual language immersion). Theoretical bases: Communicative/Sociolinguistic (Hymes); Pragmatic (Austin, Searle, Grice); Sociocultural /Interactionist (Vygotsky); Long's Interaction Hypothesis 10. <i>Get two for one</i> (e.g., Content-based Language Teaching - CBLT; Content and Language Integrated Learning - CLIL). Theoretical Bases: Input Hypothesis (Krashen); Sociocultural Theory	Reflection on the Proposal's Appropriateness in Context 2. Structured Academic Debate (e.g., "Teach What is Teachable vs. Get it Right from the Beginning.'). Pairs or teams defend different teaching proposals using SLA theory.	"Translanguaging." C. They then explain the SLA theories that support the proposal/approach, and present at least three studies that validate or support it. D. The paper concludes with a reflection on why this proposal aligns with their developing identity as pre-service teachers. Blog/Vlog Reflection 4 12. Suggested length of the vlog: 2-3 minutes 13. Suggested length of the blog: 200-300 words Provide pre-service teachers with the rubrics for evaluating their vlogs. See the suggested criteria in Blog/Vlog Reflection 1. Sample prompt: <i>Reflect on the six language teaching proposals by Lightbown and Spada (2021). Which aligns best with your beliefs about language learning, and how would you apply it to support learner learning? Justify your choice using research evidence and your experiences as an ESL learner or teacher.</i>	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		(Vygotsky); Cummins' BICS/CALP & Common Underlying Proficiency; Pragmatic (Austin, Searle, Grice) 11. <i>Teach what is teachable</i> (based on Developmental stages). Theoretical Bases: Natural Order Hypothesis (Krashen); Cognitivism (Piaget) 12. <i>Get it right in the end</i> (Form-focused instruction). Theoretical Bases: Cognitivism, Innatism <i>Note that the empirical bases/research findings for the above language-teaching approach proposals will be included in the discussion. (See Chap 6 of Lightbown & Spada).</i> 7 Post-method multilingual pedagogies: Content and Language Integrated Learning (CLIL); Translanguaging Pedagogy (TP); Culturally Sustaining and Critical Multilingual Pedagogies: Technology-Enhanced Multilingual Language			

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		Learning (Digital multimodal and AI-supported language learning tools)			
15-16	Compare the 1987 Philippine Bilingual Education Policy (BEP) and the Mother Tongue-Based Multilingual Education (MTB-MLE) policy in terms of goals, implementation, and linguistic assumptions. Explain which Second Language Acquisition (SLA) theories align with or provide support for each policy.	• SLA theories as reflected in Philippine Language Policies • DO 81, s 2003 (English as primary medium for Math and Science; Filipino for social studies and values education) • Philippine Bilingual Education Policy (DO52, s 1987 Bilingual Education Policy) • Mother tongue based-multilingual Education (DO 74, s2009) • DO 10, s. 2024 (Policy Guidelines on the Implementation of the MATATAG Curriculum, particularly its guideline in the allows and encourages strategic use of learners' full linguistic repertoire to support understanding, especially in multilingual classrooms.	Guided Comparative Discussion: Pre-service teachers compare and contrast the 1987 Philippine Bilingual Education Policy vs MTB-MLE and discuss what SLA theories may be aligned or provide support to the policy by completing a comparative chart. They will create a table comparing the BEP (1987) and MTB-MLE policies with the following columns: • Policy Goals • Language(s) of Instruction • Implementation Approach • Assumed Language Learning Principles • SLA Theories that align with/support the policy	SA5_Critical Comparative Analysis of Southeast Asian Language-in-Education Policies Comparative presentation of two Language Policies in Southeast Asia using a comparison table that shows the following headings: 1. Policy Goals; 2. Language(s) of Instruction; 3. Implementation Approach; 4. Assumed Language Learning Principles and SLA Theories that align with/support the policy; 5. The strengths and limitations of the policy in relation to language teaching and learning. Blog/Vlog Reflection 5 • Suggested length of the vlog: 2-3 minutes • Suggested length of the blog: 200-300 words Provide pre-service teachers with the rubrics for evaluating their vlogs. Sample prompt: <i>Reflect on the current/latest version</i>	[02] [04] [08] [09] [10] [26] [30]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
				<i>of the MTB-MLE policy of the Philippines. If you had the authority and influence to revise it, what TWO key revisions would you propose? Why would you propose these changes?</i> Provide pre-service teachers with the rubrics for evaluating their vlogs. See the suggested criteria in Blog/Vlog Reflection 1.	
17-18	Demonstrate mastery of SLA theories/key hypotheses and SLA-informed ELT proposals, as evidenced by LET-like test results and a vlog portfolio.	LET-like test Professional Reflection through Portfolio Presentation	LET-like test on the theories/key hypotheses and the pedagogical proposals based on the theories Portfolio presentation (including the 5 blog/vlog-like reflections)	SA6_30-item LET-like Test (M-C) on SLA theories/key hypotheses and their implications to teaching. Sample item: A teacher plans to introduce new language structures to learners in a carefully sequenced way, ensuring that the level of complexity is slightly above their current level. She believes learners will naturally acquire the language if they understand it. Which hypothesis is demonstrated in the teachers' decision? A. Lenneberg's Critical Period Hypothesis B. Schumann's Acculturation Hypothesis C. Long's Interaction Hypothesis D. Krashen's Input Hypothesis E. None of the above	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
				Portfolio of Reflective Blog or Vlogs A multimedia portfolio containing all five individual vlog reflections created throughout the course, culminating in a synthesized summary that highlights key professional growth, theoretical insights from SLA, and implications for multilingual education practice.	

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Batsilyer ng Edukasyon Medyor sa Filipino

SYLLABUS GUIDE FOR PATAKARANG PANGWIKA AT MULTILINGGUWALISMO

Course Credits	3 units	Contact Hours	
Prerequisite/s			
Course Description	Ang kursong ito ay tumatalakay sa mga patakarang pangwika sa Pilipinas at ang kanilang implikasyon sa multilingguwal na konteksto ng bansa. Susuriin nito ang Mother Tongue-Based Multilingual Education (MTB-MLE), bilingual education policy, at iba pang mga modelo ng edukasyong multilingguwal. Tatalakayin ang mga ito sa liwanag ng mga teorya ng pagkatuto ng wika at mga dalumat ng code-switching, translanguaging, at linguistic repertoire sa silid-aralan. Matuturuan nito ang mga pre-service na guro na makilala ang linguistic resources ng kanilang mga mag-aaral at gamitin ito bilang pundasyon ng pagkatuto.		

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
[PO 1] Naipamamalas ang mapanuri at mapagnilay na pag-unawa at pagkatuto sa mga batayang kaalaman sa Filipino.	[CLO 1] Nahihinuha ang ugnayan ng kontekstong multilinguwal sa iba't ibang patakarang pangwika na bansa.	[1.1.1]
[PO 6] Nakikibahagi sa lokal, nasyonal at global na palitan ng kaalaman, kasanayan, at kaugalian tungo sa kaunlarang panglarang at panlipunan	[CLO 2] Nailalapat ang mga implikasyon ng patakarang pangwika sa pagpapalano at pagbuo ng mga gawaing pangguro sa kinabibilangang pamayanan. [CLO 3] Nakabubuo ng iba't iba't gawain sa anyo ng proyekto at programa kaugnay ng natutuhan sa patakarang pangwika sa kontekstong multilinguwal.	[6.1.1]

Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 1] Nahihinuha ang ugnayan ng kontekstong multilinguwal sa iba't ibang patakarang pangwika na bansa. [CLO 2] Nailalapat ang mga implikasyon ng patakarang pangwika sa pagpapalano at pagbuo ng mga gawaing pangguro sa kinabibilangang pamayanan. [CLO 3] Nakabubuo ng iba't iba't gawain sa anyo ng proyekto at programa kaugnay ng natutuhan sa patakarang pangwika sa kontekstong multilinguwal.	Pasalitang Pagsusulit Gamit ang Surilawan Pasulat na Pagsusulit Nilay-Bulay sa Danas sa Kurso Gamit ang ASI: Analisis, Sintesis, at Implikasyon	Nakapagbabahagi sa mapanuri at mapagnilay na paraan ng mga natutuhang kaalaman at kasanayan ukol sa implikasyon ng ugnayang patakarang pangwika at multilingguwalismo sa hamon at oportunidad bilang guro ng bukas.

Note: TEIs can add additional matrices to reflect alignment with their institutional outcomes.

Suggested Learning Plan

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources												
1	Naihahanda ng bawat isa ang sarili sa hamon at oportunidad ng kurso bilang guro ng wika. Nahihinuha ang ugnayang patakarang pangwika at kontekstong multilingguwal	Oryentasyong Pangklase ● Pagkilala sa Sarili, Kamag-aral, Guro, at Kurso ● AYUDANG 4Ps: Patakarang, Polisiya, Programa, Proyekto	Ang TAHANAN ni Mam at Sir: Ang GURO Bilang si Big Brother at Big Sister 1. Bintanang 4Ps ng Guro, Paghahanda sa Aktuwal na Pagtuturo <table><tr><td>Patakarang</td><td>Polisiya</td></tr><tr><td>Programa</td><td>Proyekto</td></tr></table>	Patakarang	Polisiya	Programa	Proyekto	Sanaysay: Ako, Pagkatapos ng Kurso Mamarkahan ang personal na sanaysay gamit ang 4Ps: <table><tr><td>PAMANTAYAN</td><td>Puntos</td></tr><tr><td>PAKSA</td><td>2</td></tr><tr><td>PARAAN ng Pagsulat</td><td>2</td></tr><tr><td>PAGNINILAY</td><td>3</td></tr></table>	PAMANTAYAN	Puntos	PAKSA	2	PARAAN ng Pagsulat	2	PAGNINILAY	3	Power Point Presentation o Anumang Kagamitang Panturo na ang Inspirasyon ay <i>Pinoy Big Brother House</i> Sagutang Papel/<i>Worksheets</i> <i>Toolkit/Modyul ng Kurso</i>
Patakarang	Polisiya																
Programa	Proyekto																
PAMANTAYAN	Puntos																
PAKSA	2																
PARAAN ng Pagsulat	2																
PAGNINILAY	3																

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources														
	lampas bilang kurso kung hindi konteksto sa naghihintay na misyon bilang guro.		2. Ang guro ang magiging Big Brother/Sister samantala ang mga mag-aaral ang posibleng maging <i>housemates</i>. 3. likot ang masaya at malikhaing oryentasyon sa iba't ibang paunang <i>tasks</i> o gawain.	<table><tr><td>PAG-UUGNAY ng Danas sa Oryentasyon</td><td>3</td></tr><tr><td>Kabuoan</td><td>10</td></tr></table>	PAG-UUGNAY ng Danas sa Oryentasyon	3	Kabuoan	10											
PAG-UUGNAY ng Danas sa Oryentasyon	3																		
Kabuoan	10																		
2	Naiisa-isa ang mga konsepto kaugnay ng patakarang pangwika at multilingguwalismo sa pamamagitan ng pagbibigay-kahulugan, kaligiran, at kahalagahan. Naibabahagi ang reaksiyon, emosyon, at aksiyon mula sa naging realisasyon sa mga aralin kaugnay ng paunang kaalaman sa patakarang pangwika at multilingguwalismo. Nakapagdidisenyo ng sariling grapikong pantulong batayan ng pag-unawa sa aralin.	Panimula sa Patakarang Pangwika at Multilingguwalismo sa Pilipinas A. Kahulugan B. Kaligiran C. Kahalagahan	3 in 1 Kaalaman: Ang Tatlong K ng Patakarang Pangwika at Multilinguwalismo - Triyanggulo ng Konsepto, Sandigan ng Pagkatuto  - Sa tulong ng grapikong pantulong, magiging gabay ito sa impormatibo, instruksiyonal, at inobatibong pagtuturo upang mahimay-himay ang mga esensiyal na konsepto. - Mula sa karanasan sa sistematikong pag-iisa-isa ng konsepto, magpapahayag ang mag-aaral ng kani-kanilang reaksiyon, emosyon, at aksiyon.	Sariling Grapikong Pantulong - Bubuo at magdidisenyo ang mag-aaral ng sariling grapikong pantulong. - Ang grapikong pantulong ay naglalaman ng konsepto at konteksto ng mga paksang may kinalaman sa Patakarang Pangwika at Multilingguwalismo. - Mamarkahan ang grapikong pantulong gamit ang 3I <table><tr><td>Impormatibo</td><td>3</td></tr><tr><td>5.3 Hitik sa Impormasyon</td><td></td></tr><tr><td>Instruksiyonal</td><td>4</td></tr><tr><td>5.4 Magagamit na biswal pantulong</td><td></td></tr><tr><td>Inobatibo</td><td>3</td></tr><tr><td>5.5 Kakaiba at di-karaniwa ng produkto</td><td></td></tr><tr><td>Kabuoang Marka</td><td>10</td></tr></table>	Impormatibo	3	5.3 Hitik sa Impormasyon		Instruksiyonal	4	5.4 Magagamit na biswal pantulong		Inobatibo	3	5.5 Kakaiba at di-karaniwa ng produkto		Kabuoang Marka	10	Grapikong Pantulong [1] [2]
Impormatibo	3																		
5.3 Hitik sa Impormasyon																			
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Inobatibo	3																		
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Kabuoang Marka	10																		

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources								
3	Natutukoy ang esensiyal na konsepto at kaisipan kaugnay ng kasaysayan ng patakarang pangwika sa bansa at ang implikasyon nito sa kasalukuyan. Nahihinuha ang gampanin ng kasaysayan sa daloy ng patakarang pangwika sa kontekstong multilingguwal ng bansa.	Kasaysayan ng Patakarang Pangwika sa Pilipinas - Pre-Kolonyal - Kolonyal - Kontemporaneong Panahon	Kartolina Karaban: Sulyap sa Nakalipas at Abot-Tanaw na Bukas ng Patakarang Pangwika sa Pilipinas 1.1 Noon, Ngayon, at Bukas ng Patakarang Pangwika, Abot-tanaw na Matibay at Matatag na Patakaran ng Bansa NOON Panahon ng Katutubo Panahong Kolonyal NGAYON Bilingguwal na Patakaran BUKAS _____ _____ _____ 1.2 Sa tulong ng talahanayan mababalikan ang kasaysayan at maiisa-isa ang mga konsepto kaugnay nito. Magagamit na batayan ang mga impormasyon para sa naghihintay na bukas sa usaping pangwika sa isang multilingguwal na bansa. 1.3 Ang pagpunta sa iba't ibang istasyon na may kaakibat na paksa ang magpapayabong sa talakayan sa kasaysayan kaugnay ng patakarang pangwika.	Pormatibong Pagsusulit Gamit ang Tama o Mali sa Pagtukoy ng mga Konsepto at Kaisipan sa Paksang Aralin 3. Swak o Ligwak (limang aytem) 4. Havey o Waley (limang aytem)	Talahanayan Mga Video Mula sa Youtube [3] [4] [5] [6]								
4	Nailalarawan ang iba't ibang teoryang pangwika mula sa paghihimay-himay ng mga konsepto at kaisipang kaugnay nito.	Teorya ng Pagkatuto ng Wika at Aplikasyon sa Patakarang Pangwika - Behaviorismo - Kognitibismo - Konstruktibismo	PRAXIS: Forum sa Teorya at Praktika sa Kuwento at Kuwenta ng Patakarang Pangwika PANAYAMAN sa mga Teoryang Pangwika, Pundasyon ng Matatag na Kaalaman	Halimbawang Rubriks sa Pamantayan <table><tr><td>Pamantayan</td><td>Superyor</td><td>Magaling</td><td>Mabait</td></tr><tr><td>Organisasyon sistematiko ang naging</td><td></td><td></td><td></td></tr></table>	Pamantayan	Superyor	Magaling	Mabait	Organisasyon sistematiko ang naging				Matrix o Talahanayan Pubmat ng PANAYAMAN [7] [8] [9]
Pamantayan	Superyor	Magaling	Mabait										
Organisasyon sistematiko ang naging													

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks				Teaching and Learning Resources
	Naiuugnay ang mga teoryang pangwika sa praktika ng pagtuturo at pagkatuto na may kaugnayan sa pamayanan, bansa, at mundo.	At Iba pa	TEORYA Behaviorismo PRAKTIKA Paulit-ulit na Pagbasa, Panuto, at Iba pa Mahahati ang klase para gumawa ng panayam at talakayan sa isang tiyak na teorya. Mula sa iba't ibang naratibo, bubuo ng implikasyon kung paano ilalapat o isasapraktika ang mga natamong kaalaman sa aktuwal na pagtuturo, pagbuo ng patakarang pangwika, at iba pang hakbang sa pagpapayaman ng wika ng bawat pamayanan.	daloy ng panayaman				
				Nilalaman				
				napalawak at napayaman ang kaalaman sa paksa o aralin				
				Presentasyon				
				masining at malikhain ang naging panayaman				
				Pagkakaisa				
				ipinamalas ang pagkakaisa at pagtutulungan ng pangkat				
				KABUOAN				
5	Natatalakay ang balangkas mula sa batayang legal at institusyonal kaugnay ng iba't ibang patakarang pangwika. Natataya ang bisa at halaga ng iba't ibang batayang legal at institusyonal sa kontekstong danas	Legal at Institusyonal na Balangkas ng Patakarang Pangwika - Konstitusyon 1987 - Polisiya ng CHED at DepEd - Pambansang Mandato	TSUBIBO ng KARUNUNGAN: Legal na Batayan, Babauning Kaalaman Istasyon ng Konsepto, Gurong-Mag-aaral na Eksperto Eksperto 1 Eksperto 2 Eksperto 3	Mamarkahan ng bawat kasapi ang sarili batay sa mungkahing tseklist kaugnay ng ginawang aglalakbay at pagtalakay sa aralin.				Grapikong Pantulong Iba't ibang sagutang papel na ihahanda ng bawat pangkat sa istasyon Iba't ibang biswal pantulong. [10]
				KATANGIAN	Akong-ako!			
				1. Naipahayag ko bilang eksperto ang buong paksa ng pangkat.				
				2. Nagawa ko bilang eksperto na ipaunawa sa ibang pangkat ang				

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources															
	sa kasalukuyan ng paaralan at pamayanan.		- Ang bawat pangkat ay mahahati sa dalawa pang pangkat. - Ang bawat pangkat ay may eksperto na mananatili sa istasyon at ang isang pangkat ay magiging tagapaglakbay para kumuha ng ibang impormasyon.	<table><tr><td>nilalamang paksa sa grupo.</td><td></td><td></td></tr><tr><td>3. Nakuha ko bilang tagapaglakbay ang lahat ng impormasyon mula sa ibang eksperto.</td><td></td><td></td></tr><tr><td>4. Nakagawa ko ng paraan para maitala ang iba't ibang impormasyon.</td><td></td><td></td></tr><tr><td>5.Naging mabuting kasapi sa pangkat mula sa konseptuwalisasyon hanggang sa pagbuo ng iba't ibang gawain.</td><td></td><td></td></tr><tr><td>KABUOAN</td><td></td><td></td></tr></table>	nilalamang paksa sa grupo.			3. Nakuha ko bilang tagapaglakbay ang lahat ng impormasyon mula sa ibang eksperto.			4. Nakagawa ko ng paraan para maitala ang iba't ibang impormasyon.			5.Naging mabuting kasapi sa pangkat mula sa konseptuwalisasyon hanggang sa pagbuo ng iba't ibang gawain.			KABUOAN			[11] [12]
nilalamang paksa sa grupo.																				
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5.Naging mabuting kasapi sa pangkat mula sa konseptuwalisasyon hanggang sa pagbuo ng iba't ibang gawain.																				
KABUOAN																				
6	Nailalahad ang iba't ibang pag-aaral mula lokal, nasyonal, at global kaugnay sa naging hamon, resulta, oportunidad ng MLE-MTBI. Nakapagbabahagi ng opinyon at tiyak na tugon sa kasalukuyang estado ng patakarang MLE-MTBI bilang nagsasanay na guro.	Mother Tongue-Based Multilingual Education (MTB-MLE): Pilosopiya at Implementasyon - Pagkatuto Gamit ang Unang Wika - Teorya at Praktika - Kritikal na Isyu	QUOTABLE QUOTES at BALIK-BANGGIT 7. Ayon sa Eksperto, Batayan ng Pagkatuto // _____ _____ 8. Bawat isa ay magsasaliksik ng tumatak na pahayag ng dalubwika o pantas kaugnay ng paksa. 9. Tiyaking tama ang balik-banggit at may kaakibat na disenyo at paliwanag	Rubriks sa Islogan (20 pts) 1. Mensahe – 8 pts ✓ Malinaw, makabuluhan, at tumutugon sa paksa. 2. Pagkamalikhain – 6 pts ✓ Masining, may orihinal na ideya, at kapukaw-damdamin. 3. Kaayusan at Presentasyon – 6 pts ✓ Malinis, nababasa, at maayos ang pagkakaayos ng salita/larawan.	[13] [14] Tanggol Wika, PSLLF, PATAS — Posisyong Papel hinggil sa MTB-MLE at Patakarang Pangwika Isang posisyong papel mula sa civil society na sumuri sa epekto ng MTB-MLE sa pambansang wika at mga lokal na wika.															

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources																																																		
			maging sariling tugon na pahayag sa anyo ng islogan.																																																				
7-8	Natitipon ang mga saliksik sa lokal, nasyonal at global kaugnay sa mga paksang multilingguwal na edukasyon at patakarang pngwika upang maging batayan ng matibay na kaalaman bilang mamamayan at guro ng edukasyong pangwika. Nakabubuo ng anotasyon o sintesis ng mga naunang pag-aaral lokal, nasyonal at global kaugnay sa mga paksang multilingguwal na edukasyon ay patakarang pangwika na maaaring maging batayang kaalaman para sa susunod pang mga saliksik at pag-aaral.	Pagsusuri sa MTB-MLE sa Multilingguwal na Silid-Aralan F. Pedagoghiya/K agamitang Panturo G. Iba’t Ibang Programa, Gawain, at Polisiya H. Konteksto at Ugnayang Komunidad	SURI-SALIKSIK at BANGKO ng DATOS - Saliksik na Natipon, Bagong Dagdag na Kaalaman ang Naipon <table><thead><tr><th>Saliksik</th><th>Lugar/S akop</th><th>Layuni n/Kah alagah an</th><th>Resul ta/Re kome ndas yon</th></tr></thead><tbody><tr><td>Pedagoh iya/Kaga mitang Panturo</td><td></td><td></td><td></td></tr><tr><td> • • 3 • • </td><td></td><td></td><td></td></tr><tr><td>Program a/Polisiy a 1.13 1.14 1.15 1.16 1.17</td><td></td><td></td><td></td></tr><tr><td>Kontekst o sa Komunid ad 2.4 2.5 2.6 2.7 2.8</td><td></td><td></td><td></td></tr></tbody></table>	Saliksik	Lugar/S akop	Layuni n/Kah alagah an	Resul ta/Re kome ndas yon	Pedagoh iya/Kaga mitang Panturo				• • 3 • •				Program a/Polisiy a 1.13 1.14 1.15 1.16 1.17				Kontekst o sa Komunid ad 2.4 2.5 2.6 2.7 2.8				Gabay sa pagmamarka sa Bangko ng Datos tungo sa Pagbuo ng Anotasyon: 5-Lubos na Sang-ayon 4-Sang-ayon 2-Di-Sang-ayon 1-Lubos na Di-Sang-ayon 0-walang Ginawa *markahan at ipaliwanag ang sagot A. Angkop sa paksa at panahon ang nakuhang saliksik. <table><tr><td>5</td><td>4</td><td>2</td><td>1</td><td>0</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> B. Naitala at kumpleto ang angkop na impormasyon: layunin, kahalagahan, resulta, at iba pa. <table><tr><td>5</td><td>4</td><td>2</td><td>1</td><td>0</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> C. Malinaw ang naging pagsusuri sa anyo ng sintesis at iba pang paraan ng pagbuo ng diskurso. <table><tr><td>5</td><td>4</td><td>2</td><td>1</td><td>0</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	5	4	2	1	0						5	4	2	1	0						5	4	2	1	0						Talahanayan ng Bangko ng Datos (word file) Mga Abstrak ng Tesis at Disertasyon [15] [16] [17]
Saliksik	Lugar/S akop	Layuni n/Kah alagah an	Resul ta/Re kome ndas yon																																																				
Pedagoh iya/Kaga mitang Panturo																																																							
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			Bawat isa ay mangangalap ng mga abstrak ng mga naunang pag-aaral at ilalagay sa mapagkakasunduang talahanayan upang paglagyan ng mga mahahalagang impormasyon.												
9	Naiisa-isa ang mga batayang kaalamang natutuhan sa aralin mula sa pagpili, pagtukoy, pagtatala, pagbibigay-kahulugan, at iba pa. Nailalahad ang mga hindi magmamaliw na kaalaman o <i>enduring understanding</i> sa mga unang batayang kaalamang tinalakay.	Panggitnang Pagsusulit Pasulat at Pasalitang Pagsusulit	Pasalita o Oral na Pagsusulit <i>Pecha Cucha</i> o Surilawan Pasulat - May Pagpipilian - Tama o Mali - Pagpapakahuluga - Sanaysay	Gabay sa Pagmamarka Pasalita o Oral na Pagsusulit <i>Pecha Cucha</i> o SURILAWAN (30 puntos) Pasulat na Pagsusulit - May Pagpipilian (10 puntos) - Tama o Mali (10 puntos) - Pagpapakahulugan (20 puntos) - Sanaysay (30 puntos) - KABUOAN (100 puntos)	Slide Show Presentation ng iba’t ibang Larawan kaugnay ng Paksa Halimbawang Larawan: 										
10	Nakapagbibigay ng tiyak na halimbawa mula sa naging pagsusuri sa iba’t ibang modelo ng edukasyong multilingguwal. Nakapagbabahagi ng mga tiyak na sitwasyon sa mabuti at di	Mga Modelo ng Edukasyong Multilingguwal 4.4 <i>Additive</i> 4.5 <i>Subtractive</i> 4.6 <i>Transitional</i>	SINTURON ng KAALAMAN Pinagsama-samang Impormasyon, Bawat Kasapi ng Pangkat ang Tutugon ADDITIVE identidad o pagkakakilanlan kompiyansa sa sarili	Gawing gabay sa pag-uulat, pagtatanghal, o pangkatang presentasyon. Makatutulong na maging gabay ang sumusunod na rubriks sa Sinturon ng Kaalaman: <table><tr><td>☺ ☺ ☺</td><td>Sobra</td></tr><tr><td>☺ ☺</td><td>Sakto</td></tr><tr><td>☺</td><td>Salat</td></tr><tr><td>Pamantayan</td><td>Marka</td></tr><tr><td>Malinaw at organisado ang nilalaman</td><td></td></tr></table>	☺ ☺ ☺	Sobra	☺ ☺	Sakto	☺	Salat	Pamantayan	Marka	Malinaw at organisado ang nilalaman		<i>meta cards at flash cards</i> <i>Lecture notes o Hand-out</i> na ihahanda ng guro at mag-aaral
☺ ☺ ☺	Sobra														
☺ ☺	Sakto														
☺	Salat														
Pamantayan	Marka														
Malinaw at organisado ang nilalaman															

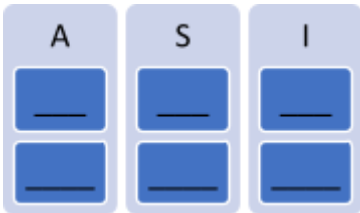
Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	mabuting epekto ng edukasyong multilingguwal mula sa mga saliksik bilang patunay sa dulot nito sa lokal, nasyonal, at aspektong global.		SUBTRACTIVE Pagpapalit dominanteng wika TRANSITIONAL Pansamantala language shift Ang bawat pangkat ay kakatawan sa iba't ibang modelo. Ang bawat kasapi ay maglalahad ng mga impormasyon o paliwanag kasabay ng pagtatanghal ng nabuong presentasyon ng grupo.	Masining ang presentasyon/pagtatanghal Nakiisa ang bawat kasapi ng pangkat Kabuoan 4-6 - masang-ayon 1-3 - m	
11	Nauugat ang salik sa pagpapalit-koda ng mga salita mula sa aspektong heyograpikal, panlipunan, at iba pa. Napagninilayan ang epekto, hamon, at	Code-Switching at Pedagogical Code-Switching - Teorya - Uri at Gamit - Miskonsepsiyon	KUWADRO ng KONSEPTO 5. Inugat na Kaalaman, Tumubo ng Karunungan Konsepto Kahulugan Code-Switching at Pedagogical Code-Switching	Pagbuo ng Kuwadro ng Halimbawa sa Iba't ibang Miskonsepsiyon Salita: _____ Paliwanag/Mis-konsepsiyon Salita: _____ Paliwanag/Mis-sepsiyon	Kuwadro o Talahanayan Link ng mga Babasahin: [18] [19] [20]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities		Assessment Tasks		Teaching and Learning Resources							
	tugon ng guro. midya, at iba pang domeyn pangwika sa konsepto at konteksto ng <i>Code-Switching</i> at <i>Pedagogical Code-Switching</i> .		Konteksto	Kabuluhan	Salita: _____ Paliwanag/Mis-kons epsiyon Salita: _____ Paliwanag/Mis sepsiyon Mamarkahan batay sa: <table><tr><td>♥♥♥♥♥</td><td>Mayaman sa aliw gamit ang teorya</td></tr><tr><td>♥♥♥♥</td><td>Sapat ang paliwa</td></tr><tr><td>♥♥♥</td><td>Bahagyang kinul ang paliwanag</td></tr><tr><td>♥♥</td><td>Kulang na kulang paliwanag</td></tr></table>	♥♥♥♥♥	Mayaman sa aliw gamit ang teorya	♥♥♥♥	Sapat ang paliwa	♥♥♥	Bahagyang kinul ang paliwanag	♥♥	Kulang na kulang paliwanag	
♥♥♥♥♥	Mayaman sa aliw gamit ang teorya													
♥♥♥♥	Sapat ang paliwa													
♥♥♥	Bahagyang kinul ang paliwanag													
♥♥	Kulang na kulang paliwanag													
12	Natutukoy at nakikilala ang mga teorya sa <i>translanguaging</i> para maging batayang konsiderasyon sa espasyo nito sa makabuluhang pagpaplano at pagtuturo ng mga aralin.	Translanguaging sa Silid-Aralan - Dalumat - Praktis at Benepisyo - Kaugnayan sa Literasi	P2: Pagtatanghal at Pagdalumat - Mahahati ang klase sa grupo. Magpapakita ang bawat pangkat ng sitwasyon sa silid-aralan sa iba’t ibang asignatura, paksa, o mga pangyayari kung paano ilalapat ang <i>translanguaging</i>. - Matapos ang pagsasadula ng tiyak na sitwasyon, ang ibang pangkat na nanood ang magbibigay ng diskurso at dalumat mula sa mga natutuhang teorya at batayang kaalaman kaugnay sa paksang <i>translanguaging</i>.		Rubriks sa Pagsasadula (10 pts) 1. Pag-unawa – 4 pts Tama at malinaw ang sitwasyon. 2. Pagganap – 4 pts Natural at angkop ang pag-arte o pagganap. 3. Koordinasyon – 2 pts Maayos ang daloy at <i>teamwork</i> ng pangkat. Rubriks sa Pagdalumat (10 pts) 1. Pag-unawa – 5 pts Matayog at malinaw ang dalumat at diskurso. 2. Paraan ng Pahayag – 3 pts		Hand-out na ihahanda ng guro kaugnay ng Kahulugan, Katangian, at Batayang Teorya sa Translanguaging Props para sa pagtatanghal							

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources										
	Nakapagsasaliksik ng mga kaugnay na pag-aaral sa lokal, nasyonal, at global na aspekto ng naging bis at halaga ng <i>translanguaging</i> bilang batayan ng isasagawang pagtatanghal.			Angkop, magalang, at maayos na naipaliwanag ang nais sabihin sa ibang pangkat. 3. Impak – 2 pts Nag-iwan ng menshaneng naglalaman ng aral, patnubay, at pahiwatig ng ugnayan.											
13- 14	Nabibigyang-kahulugan at kabuluhan ang mga konseptong tulad ng wika, dialekto, <i>linguistic resources</i>, komunidad pangwika, at iba pa. Naibabahagi ang sitwasyong pangwika ng sariling komunidad at naiuugnay ito sa usaping pangwika sa antas pambansa at pandaigdig.	Linguistic Repertoire ng Mag-aaral Pagkilala sa Wika, Dialekto, Register, at Linguistic Resources ng mga Mag-aaral Linguistic Landscape at Community Language Mapping - Pag-aaral ng Wika sa Komunidad - Wika ng Komunidad at Ugnayan sa Patakaran at Pedagogiya	Mapa at Pagmamapa ng Wika ng Mag-aaral at Komunidad 3. Mapa ng Wika, Pagmamapa ng Diwa at Haraya <table><tr><td>Pangalan</td><td></td></tr><tr><td>Pamayanan</td><td></td></tr><tr><td>Wika sa Tahanan</td><td></td></tr><tr><td>Wika sa Pamayanan</td><td></td></tr><tr><td>Nais na Pag-aralan na iba pang Wika</td><td></td></tr></table> *maaaring madagdagan pa ang hihingiing impormasyon 4. Imamapa ng klase ang mga impormasyon kaugnay ng kaligirang pangwika ng bawat mag-aaral gamit ang sarbey 5. Mula sa impormasyon mabubuo ang pagpapakahulugan at kabuluhan bilang guro ng bukas.	Pangalan		Pamayanan		Wika sa Tahanan		Wika sa Pamayanan		Nais na Pag-aralan na iba pang Wika		Mamarkahan ang nabuong talatanungan at ang interpretasyon ng bawat pangkat sa instrumentong ginamit upang makakalap ng mga impormasyon ukol sa wika ng mag-aaral at pamayanan. Ang rubriks ay pagkakasunduan at gagawin ng buong klase na pangangasiwaan ng bawat lider ng pangkat kasama ang guro na tagapatnubay sa gawain.	Mapa halaw sa inilabas ng Komisyon sa Wikang Filipino [21] [22] [23]
Pangalan															
Pamayanan															
Wika sa Tahanan															
Wika sa Pamayanan															
Nais na Pag-aralan na iba pang Wika															

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
15	Napagninilayan ang mga tiyak na hakbang at paraan mula sa pagtuturo, pananaliksik, at gawaing pangkomunidad sa pagbuo ng mga tiyak na gawain upang mapatingkad at mapaunlad ang mga estratehiya sa pagpapayabong ng wika. Nakapagbabahagi ng mga tiyak na gawain mula sa mga nasaliksik at ginagawa rin ng paaralan at pamayanan sa pagpapaunlad ng wika.	Pagbabahagi at Pagpapaunlad ng Linguistic Resources bilang Pedagogical Tool 2.5 Multilingguwal na Bahaginan ng Wika 2.6 Translanguagi ng bilang Estratehiya 2.7 Paglikha ng Learner-Generated Linguistic Materials	PALIHAN: UGNAYANG PRODUKTO at PROSESO ng PAGTUTUTO at KAGAMITANG PANTURO - Mahahati ang klase sa tatlong paksa para tematiko at interaktibong talakayin ang sumusunod na tema ng paksang aralin: - Hamon at Ambag ng Multilingguwalismo sa Inaasahang Pilipinas na Progresibo - Inobatibo, Mapanuri, Bago, at Aktibong Estratehiya sa <i>Translanguaging</i> na Multilingguwal na Klase - Epektibong Kagamitang Panturo para sa Makabuluhang Plagkatuto sa Multilingguwal na Silid-Aralan at Pamayanan - Ang bawat pangkat ay mag-oorganisa ng gawain upang talakayin ang paksa alinsunod sa mapagkakasunduang tematikong paraan at interaktibong talakayan.	Gagamitin ang 3P's na batayan sa pagbuo rubrik para sa pagmamarka: 3P's ng Palihan PRODUKTO - Malinaw ang tiyak na kagamitang panturo na angkop sa tema/paksang ilalahad na pangkat. PROSESO - Lohikal at sistematiko ang naging daloy ng talakay mula sa pambungad na gawain hanggang pangwakas na bahagi ng palihan. PAGKAKAISA - Ang bawat kasapi ay naging aktibong kalahok at kasangkot sa iba't ibang komite para sa matagumpay na pagpapamalas o pangangasiwa ng palihan. Gabay na Marka: 4-5: Lubos na Sang-ayon 3: Sang-ayon 2: Di Sang-ayon 1: Lubos na Di-Sang-ayon	[24] [25] [26]
16-17	Nasusuri sa pamamagitan ng inisyal na pagtataya ng gawain,	Pagdidisenyo ng Patakarang Pangwika sa Paaralan o Komunidad	ADYENDANG PANGWIKA NGAYON at BUKAS ng KLASSE Sampung Kautusan sa Gawain at Programang Pangwika na Dapat Tandaan at Pahalagahan	Mamarkahan ang adyenda batay sa mungkahing hakbang:	Talahanayan ng Adyenda [27]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities		Assessment Tasks	Teaching and Learning Resources																						
	programa, polisiyang pangwika ng paaralan at pamayanan. Nakabubuo at nakapagbabahagi ng angkop at makatotohanang patakarang pangwika para sa paaralan at pamayanan na pinagtibay ng pakikilahok sa kinabibilangang paaralan at komunidad.	• Adyendang Pangwika ng Paaralan at Pamayanan • Pagtataya ng Sitwasyong Pangwika • Pagbuo at Pagsubaybay ng Inklusibong Patakarang Pangwika	<table><tr><th>Bilang</th><th>Adyenda</th></tr><tr><td>1.</td><td></td></tr><tr><td>2.</td><td></td></tr><tr><td>3.</td><td></td></tr><tr><td>4.</td><td></td></tr><tr><td>5.</td><td></td></tr><tr><td>6.</td><td></td></tr><tr><td>7.</td><td></td></tr><tr><td>8.</td><td></td></tr><tr><td>9.</td><td></td></tr><tr><td>10.</td><td></td></tr></table> • Ang klase ay babalikan ang gawain, programa, at polisiyang pangwika sa mga piling paaralan at pamayanan na kinabibilangan ng mag-aaaral. • Mula sa natukoy na kasalukuyang kalagayan, bubuo ang klase/pangkat ng tiyak na tanguhin o adhikaing pangwika sa anyo ng adyenda at itatanghal ito sa klase.		Bilang	Adyenda	1.		2.		3.		4.		5.		6.		7.		8.		9.		10.		A. Nakabatay sa kalagayang pampaaralan at pampamayanan ang adyenda 1-----3-4-----6-7-----9-10 B. Nagsagawa pangangalap ng datos sa pamayanan at paaralan bilang naging batayan sa sitwasyong pangwika 1-----3-4-----6-7-----9-10 C. Naisaayos nang lohikal ang adyenda mula sa pinakakailangan ng paaralan/pamayanan 1-----3-4-----6-7-----9-10 D. Naisulat ang adyenda alinsunod sa maayos na pamantayang panggramatika gaya ng akmang salita, bantas, gamit ng malaki at maliit na titik, at iba pa. 1-----3-4-----6-7-----9-10 E. Naitanghal nang kompleto at komprehensibo ang adyenda na sinamahan pa nang malikhaing paraan. 1-----3-4-----6-7-----9-10	[28]
Bilang	Adyenda																											
1.																												
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18	Naiisa-isa at nahihimay-himay ang	Pagbuo at Presentasyon ng Pangwakas na	NILAY-BULAY: Pagninilay sa Biyaheng-Kurso • Binalikang Karanasan, Pinagnilayang Kaalaman		Ang magiging marka ng mag-aaral ay nakabatay sa ibibigay na kulay sa bawat analisis, sintesis, at	Sagutang dinisenyuhang papel																						

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	pagbabalik-tanaw o pagbuo ng repleksiyon gamit ang sagutang papel. Naipapahayag ang kabuluhan ng buong karanasan na mga natutuhan sa iba't ibang gawain at pagsasanay sa ugnayan ng mga paksa sa multilinggwalismo at patakarang pangwika sa usapin at kalakarang lokal, nasyonal, at global.	Output: Pagbabalik-tanaw sa Nakalipas at Naghihintay na Bukas ng Patakarang Pangwika • Analisis • Sintesis • Implikasyon bilang Guro ng Bata, Bayan, at Bukas	 • Ang bawat mag-aaral ay magdadala o gagawa ng template ng talahanayan na dinisenyuhan o nilagyan ng anumang estilo upang sulatan o lagayan ng kanilang naging analisis, sintesis, at kaugnay nitong implikasyon • Isasagawa ang lakbay-silid-aralan upang marinig at maibahagi ang bawat ASI ng mga mag-aaral.	implikasyon. Narito ang gabay na marka sa bawat kulay: Pula - 5 Bughaw - 4 Dilaw - 3 Berde - 2 Rosas - 1 Analisis 2.1 mapanuri at mapagnilay ang paglalahad. Sintesis 2.2 buo, kumpleto, at detalyado ang naging pagpapahayag Implikasyon 2.3 maugnayin, tiyak, at makatotohanan ang kabuluhan ng kurso sa naghihintay na bokasyon at misyon bilang guro	

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Bachelor of Education Major in Mathematics

SYLLABUS GUIDE FOR CALCULUS I

Course Credits	3 units	Contact Hours	
Course Credits			
Prerequisite/s	Precalculus		
Course Description	This course introduces the pre-service teachers to the basic concepts of calculus. It begins with the core idea of the limit, then uses this to build the concept of the derivative and the integral. Some of the limit laws, differentiation rules, and integral formulas will be proven to provide exposure to and training in mathematical rigor. Derivatives will be applied in measuring rates, graphing functions, and optimization problems, while the integral will be applied in calculating areas of plane regions. Pre-service teachers are expected to perform calculations as well as apply the differentiation and integration process to problems in mathematics, the natural sciences, business and economics, and the social sciences. Technology (e.g., spreadsheets, CAS, graphing tools) will be utilized for exploration and problem solving. Pre-service teachers will also reflect on their learning experiences in the course and in the past and propose strategies that can mitigate possible learning difficulties of their future learners in mathematics or the sciences, like physics, chemistry and biology.		

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
[PO1] Exhibit competence in mathematical concepts and procedures. [PO3] Manifest meaningful and comprehensive technological pedagogical content knowledge (TPACK) of mathematics. [PO6] Use effectively appropriate approaches, methods, strategies, and techniques in teaching mathematics including manipulative materials and technological tools.	[CLO1] Calculate limits, derivatives and integrals of functions	[1.1.1] [1.3.1]
[PO1] Exhibit competence in mathematical concepts and procedures.	[CLO2] Prove limits of linear and quadratic functions using the definition of limits	[1.1.1]

[PO1] Exhibit competence in mathematical concepts and procedures. [PO2] Exhibit proficiency in relating mathematics within and across other curricular areas. [PO5] Demonstrate proficiency in problem-solving by solving and creating routine, non-routine, and real-life problems with different levels of complexity.	[CLO3] Apply derivatives to determine equations of tangent lines and calculate rates of change, including related rates	[1.1.1] [1.3.1]
[PO1] Exhibit competence in mathematical concepts and procedures. [PO2] Exhibit proficiency in relating mathematics within and across other curricular areas. [PO3] Manifest meaningful and comprehensive technological pedagogical content knowledge (TPACK) of mathematics. [PO5] Demonstrate proficiency in problem-solving by solving and creating routine, non-routine, and real-life problems with different levels of complexity.	[CLO4] Solve optimization problems using the Extreme Value Theorem and the derivative tests	[1.1.1] [1.3.1]
[PO1] Exhibit competence in mathematical concepts and procedures. [PO3] Manifest meaningful and comprehensive technological pedagogical content knowledge (TPACK) of mathematics. [PO6] Use effectively appropriate approaches, methods, strategies, and techniques in teaching mathematics including manipulative materials and technological tools.	[CLO5] Sketch the graph of a function using the first and second derivatives	[1.1.1] [1.3.1]
[PO1] Exhibit competence in mathematical concepts and procedures. [PO2] Exhibit proficiency in relating mathematics within and across other curricular areas.	[CLO6] Solve separable differential equations	[1.1.1]

[PO1] Exhibit competence in mathematical concepts and procedures. [PO3] Manifest meaningful and comprehensive technological pedagogical content knowledge (TPACK) of mathematics. [PO5] Demonstrate proficiency in problem-solving by solving and creating routine, non-routine, and real-life problems with different levels of complexity. [PO6] Use effectively appropriate approaches, methods, strategies, and techniques in teaching mathematics including manipulative materials and technological tools.	[CLO7] Calculate areas of plane regions using the definite integral	[1.1.1] [1.3.1]
[PO1] Exhibit competence in mathematical concepts and procedures. [PO5] Demonstrate proficiency in problem-solving by solving and creating routine, non-routine, and real-life problems with different levels of complexity.	[CLO8] Prove theorems like the chain rule, differentiation formulas and the mean value theorem	[1.1.1]

Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO1] Calculate limits, derivatives and integrals of functions	Written exam or problem set on evaluation of limits, calculating derivatives and integrals of functions	Attain a minimum score of 50% in the exam
[CLO2] Prove limits of linear and quadratic functions using the definition of limits	Written exam or problem set on proving limits using the definition.	Attain a minimum score of 50% in the exam
[CLO3] Apply derivatives to determine equations of tangent lines and calculate rates of change, including related rates	Written exam or problem set on applying the derivative to determine the tangent line to a curve and the rate of change of a variable in relation to another variable.	Attain a minimum score of 50% in the exam
[CLO8] Prove theorems like the chain rule, differentiation formulas and the mean value theorem	Written exam or problem set on proving differentiation formulas and theorems on derivatives, like the mean value theorem.	Attain a minimum score of 50% in the exam

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO4] Solve optimization problems using the Extreme Value Theorem and the derivative tests [CLO5] Sketch the graph of a function using the first and second derivatives [CLO6] Solve separable differential equations	Written exam or problem set on the applications of the derivative in optimization problems and graph sketching.	Attain a minimum score of 50% in the exam
[CLO7] Calculate areas of plane regions using the definite integral	Written exam or problem set on the application of the integral in calculating areas between cartesian curves.	Attain a minimum score of 50% in the exam

Note: TElS can add additional matrices to reflect alignment with their institutional outcomes.

Suggested Learning Plan

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
1 -2	[ILO1] Calculate the limit of a function from a table of values or from its graph [ILO2] Use technological tools to generate table of values and graphs of function and evaluate the limits of said functions	Intuitive definition of a limit from table of values and graphs, including one-sided limits	- The class might spend a class session reviewing pre-calculus concepts of functions and graphs of equations - The discussion on limits begins with illustrations and exploration of how to estimate the limit of a function using a table of values or its graph. The table of values can be generated manually using a calculator or automatically using a spreadsheet like Excel or Geogebra. A graphing application is needed to explore limit evaluation using the graph. - The concept of limits is at the heart of calculus because all other constructs (derivatives, integrals, sequences) are limits. Moreover, it is not an easy concept to understand. Therefore, it is important to spend time looking at	Individual or group problem solving on evaluation of limits using the table of values or the graph of a function	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			different examples. It is also crucial that pre-service teachers understand that the limits is NOT ○ the value of the function ○ an approximation of the function values The limit is both a description of a trend or behavior of function values and a result of indefinite repeated iterations of an operation. For example, the derivative is the result when the ratio of the change in the function values over the change in the independent variable is calculated infinitely many times while the change in the independent variable is getting smaller and smaller. Some definite integrals are the result of repeated estimation of areas using thinner and thinner rectangular strips. It is not just an approximation of the area under the graph, but the actual area. • The class might also begin with a review of their previous encounters with limits (though they might not have been aware of it at the time). For example, the derivation or explanation of the formula for the following ○ The sum of an infinite geometric series ○ Continuous interest ○ Derivation of the formula for the area of a circle • A discussion of one-sided limits is also included, as well as the condition that the limit exists if		

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			and only if the one-sided limits both exist and are equal. The concept of limits is abstract but important. Since Calculus is one of the subjects taught in senior high school, get pre-service teachers to discuss how they can help learners better understand the concept by providing examples that illustrate how and why the limit is different from the value of the function and from an approximation of the value of a function.		
3	[ILO1] State the formal definition of a limit [ILO2] Use a graphical representation to illustrate the definition of a limit [ILO3] Use the definition to prove the limit of linear and quadratic functions	Formal definition of a limit. Proving limits of linear and quadratic functions using the definition	4. It is important to let the pre-service teachers understand and appreciate the connection between the intuitive idea of a limit and its mathematical definition. The idea of “very close to” is more precisely stated as “the distance can be made as small as possible”, and further as “the distance can be made smaller than any positive value ϵ.” The typical representation of a function is that y is a function of x. i.e., the value of y depends on the value of x. In the limit definition, the distance between y values is bounded by ϵ, while the distance between x values is bounded by δ. But now, it is δ which depends on ϵ. It is important to point out this change of view. It is now the distance between y and the limit which depends on the distance between x and a.	Individual of group problem solving on proving limits of linear, quadratic or simple rational functions	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			5. Evaluation of limits often involves simple substitution, hence the probable result of students thinking of the limit as mere function value. It is important to include in the discussions examples in which this is not true. 6. Proving limits is part of higher mathematics and is not typically covered in high school. Pre-service teachers should be able to discuss the logical reasoning involved in the proof and not treat the proof as a template to be filled in. The construction of the proof involves two main parts, even though the actual proof does not explicitly present the first part. The proof involves showing that for any positive ϵ, there is a δ satisfying the conditions of the definition. a. The first part involves identifying the value of δ for any given value of ϵ. The result will be a representation of δ as a function of ϵ. This is usually done by algebraic manipulation of the two inequalities. This part is not explicitly written in the proof and can be labeled as "Scratch work". b. The second part involves proving that the obtained value of δ satisfies the requirements of the definition. This is the main		

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			part of the proof. The proof therefore usually begins with assuming that ϵ is positive and defining the value of δ for this value of ϵ. For example, given $\epsilon > 0$, let $\delta = 2\epsilon$. c. The above makes the proof very complicated for many students and will therefore require a good number of examples.		
4 – 5	[ILO1] Use the definition of limits to prove limit laws [ILO2] Apply limit laws (including Squeeze Theorem) to evaluate limits of functions, including one-sided limits [ILO3] State the formal definitions of limits involving infinity and illustrate these graphically [ILO4] Use limit laws to evaluate limits involving infinity [ILO5] Define vertical and horizontal asymptotes and use limits to identify asymptotes of graphs of functions	Proofs and applications of the limit laws Limits involving infinity and asymptotes	- The proofs of the limit laws can be very complex. Focus on the simpler formulas in the class discussions (limit of a linear function, limit of a sum/difference, multiplying the function by a constant). The others can be stated without proof, or if the class is sufficiently advanced, can be given as a problem set. - Provide plenty of exercises. - It is important to understand the reasoning and distinction between an indeterminate limit and an undefined limit. Indeterminate limits need to be resolved into a limit that exists as a real number or an undefined limit. Whereas undefined limits are limits that have been established to not exist as real numbers. For example, the limit form $\frac{1}{0}$ is undefined because $1 \div 0$ asks what number multiplied to 0 will give 1. Since there is no such number, the limit does not exist. On the other hand, $\frac{0}{0}$ or $0 \div 0$ asks what number multiplied to 0 will give 0. There	Individual or group problem solving on evaluating limits using limit laws, evaluating limits involving infinity, identifying asymptotes of graphs of functions Homework on proving some of the limit laws.	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			are many possible solutions (in fact any number is a solution). Therefore, the limit cannot be determined YET. To determine the actual limit, the expression can be modified by reducing to lowest terms or rationalizing a component (the numerator, usually). 4. In general, evaluation of limits involves calculating function values. Students might miss the practical use of limits. Why is the limit needed if the function value is simpler to calculate and understand? One application is describing the behavior of functions using their asymptotes. Define vertical and horizontal asymptotes in terms of limits and discuss how the connection between the limits and the graph works. Give exercises on sketching the graph of a function given the limits (and one-sided limits) are different values (including infinite limits and limits at infinity). As an extension, pre-service teachers can generate a list of limits and get their classmates to sketch the graph of the function based on the limits given.		
6	[ILO1] Define continuity at a point and continuity on an interval [ILO2] Prove that a function is continuous at a point using the definition	Continuous functions, Intermediate Value Theorem	1. Define continuity at a point and illustrate graphically what each condition implies. 2. Show graphs of different functions which are not continuous at a point and ask the pre-service teachers which of the conditions for continuity are violated.	Individual or group problem solving on determining continuity of a function at a point, sketching the graph of a function given continuity and limit properties, and applying the intermediate value theorem	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	[ILO3] Discuss the different types of discontinuity and illustrate these graphically [ILO4] State and apply the Intermediate Value Theorem		- Get the pre-service teachers to appreciate that although there is only one way for a function to be continuous, there are different ways in which it can be discontinuous. Discuss the different types of discontinuity. - Define what it means for a function to be continuous on an interval (open, closed, half-open, bounded, unbounded). Is “continuous on $[a, b]$” the same as “continuous at every number in $[a, b]$”? Remind pre-service teachers that continuity is based on limits and therefore has both one- and two-sided dimensions. For a function to be continuous at a number, it must be continuous both from the left and the right at that number. - Continuity is a very useful property for a function. Many of the problems and applications we want to solve with functions are simpler if the functions are continuous. For example, if we want to estimate the solution to an equation (or the zero of a function), iterations can be made using values getting closer to each other and at different sides of 0. This means we can get values of a and b getting closer to each other such that the value of the function at a and at b are on different sides of 0 or the desired value. - The IVT assures us that since the domain has no holes (interval) and the function is continuous,		

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			then the range also has no holes (interval). In the next chapters, more useful properties of continuous functions will be discussed. Get pre-service teachers to give examples of functions (graphical or formulaic) which fail to satisfy the conclusion of the IVT and have them explain how the conditions of the theorem were not met. 7. It is also important for the pre-service teachers to realize that the IVT is a one-directional implication. It is therefore possible that the conclusion of the theorem is satisfied even though the conditions are not met. Get them to give examples of these cases by giving a sketch of the graph of the function over an interval.		
7	[ILO1] State the limit definition of the derivative of a function at a point [ILO2] Discuss the interpretations of the derivative as the slope of the tangent line and the rate of change of a function [ILO3] Use the limit definition to evaluate the derivative of a function at a point	Definition of derivative as slope of tangent lines and rate of change	The primary motivation for the study of derivatives is the development of a mathematical model that can embody change. The derivative is a measure of the rate at which a quantity is changing in relation to another quantity changing. In physics, the standard application lies in the study of rectilinear motion. Geometrically, the rate of change of a function is represented by the slope of the tangent line. Therefore, the development of the definition of the derivative may begin either with a rate (or speed) problem or a tangent line problem. Using this as motivation, the derivative as the limit of the ratio of the change in $f(x)$ over the change in x .	Individual or group problem solving on calculating derivatives, applying the derivative to measure rates of change, identifying the equation of the tangent line to the graph of a function at a given point Get the pre-service teachers to list different rates by thinking of quantities that change in relation to each other (e.g., the rate of change of the area of a circle with respect to the change in its diameter, the rate of change in the heart rate of a person with respect to time of day, the rate of change in the amount of paint needed to	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			Get the pre-service teachers to discuss how the notion of a tangent line is similar or different from the tangent lines they have defined in geometry. How is the tangent line to a curve different from the tangent line to a circle? A few examples of calculation using the limit definition of the derivative can be discussed for the purpose of deepening the understanding of the definition. For the most part, derivatives will be calculated using the differentiation rules. Using the limit definition, prove that differentiability implies continuity. Give emphasis to the correct terminology. The process or action of calculating the derivative of a function is called <i>differentiation</i>, not derivation. To calculate the derivative is to differentiate, not derive.	paint a hemispherical dome with respect to the change in the dome's radius, etc.	
8 – 9	[ILO1] Use the definition of the derivative to derive or prove formulas for the derivative of a function, including chain rule [ILO2] Use the differentiation rules to evaluate derivatives of functions, including higher-order derivatives [ILO3] Use Squeeze Theorem to prove that $\frac{\sin \sin t}{t} = 1$ [ILO4] Apply the chain rule to differentiate a function defined implicitly	Differentiation rules, including chain rule and implicit differentiation	Differentiation formulas and rules are proven using the limit definition of the derivative. About half of the formulas may be proven in class and the rest be assigned as problem set to the pre-service teachers. For example, discuss in class the formula for the derivative of a constant, x^n, sum, product, and the chain rule. Then give as assignment the proof or derivation of the formulas for the scalar multiple, the difference and the quotient. Prove the formula for the derivative of the sine function and cosine functions and	Individual or group problem solving in calculating derivatives using the formulas and applying the derivative to measure rates of change or identifying tangent lines. [11] A game based on popular TV program NCIS and derivatives can be found in https://www.tes.com/teaching-resource/ncis-national-calculus-investigative-service-11220071 [12] A worksheet on possible errors in differentiation	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	[ILO5] Use implicit differentiation to derive the formulas for the derivatives of inverse trigonometric functions and logarithmic/exponential functions. [ILO6] Apply derivatives to solve problems on rates and rectilinear motion		give as assignment the formulas for the other four trigonometric functions. The chain rule is applied to differentiate implicitly defined functions. The main application/motivation is finding the tangent line to a curve which is not a function (e.g., a conic), and to differentiate inverse functions. The derivatives of the transcendental functions are included, which means the trigonometric functions and their inverses as well as the exponential and logarithmic functions. Depending on the reference used, the exponential function may be discussed first, and the logarithmic functions follow as inverses of the exponential functions. Other references begin with the natural logarithmic function and then introduce the exponential function as inverse.	https://www.tes.com/teaching-resource/erica-s-errors-on-differentiation-11720977 [13] A worksheet on tangent and normal lines https://www.tes.com/teaching-resource/tangents-and-normals-6454887	
10 – 13	[ILO1] Apply derivatives to solve related rates and optimization problems [ILO2] Discuss and illustrate the relationship between the first and second derivatives and the graph of a function [ILO3] Illustrate and prove the First Derivative Test, the Second Derivative Test and the Mean Value Theorem [ILO4] Use the first and second derivative of the function to sketch its graph and locate local extrema, inflection points and asymptotes	Applications of the derivative • Related rates • Optimization • Graphing functions • Differentials and approximations • Antiderivatives and differential equations	This section is a compilation of the different applications of the derivative. A wide variety of examples and scenarios should be provided. For example, problems related to the biological sciences, chemistry, economics, management, psychology, archeology, and other areas of study should be discussed. A good calculus textbook will provide these examples and exercises. The graphing applications can be reinforced with the aid of technology (a graphing application like Desmos or Geogebra). Pre-service teachers can do the calculations and analysis using	Individual or group problem solving on applications of derivatives	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [16]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	[ILO5] Use differentials to solve approximation problems [ILO6] Calculate the antiderivative of functions by reversing the differentiation formulas [ILO7] Solve separable differential equations		manual calculations with the help of a calculator. They can then draw a sketch of the graph and verify their sketch using a graphing application. Differentials involve estimation and will require the use of a calculator. It is sometimes tempting to allow the students to use a list of the differentiation formulas instead of requiring them to memorize these formulas. It is however helpful for the pre-service teachers to memorize the formulas because this will help them recognize more easily which to use when reversing the process and solving antidifferentiation problems. One of the important applications of antidifferentiation is the derivation of the formulas for the velocity and position of a body in rectilinear motion based on its constant acceleration, in particular bodies in free fall.		
14 – 15	[ILO1] Use the concept of area and Riemann sums to define the integral of a function on an interval $[a, b]$. [ILO2] State and prove the Fundamental Theorems of Calculus (FTC) [ILO3] Use the FTC to evaluate the integral of a function on a closed and bounded interval. [ILO4] Use definite integrals to calculate the areas of regions between curves in the cartesian plane.	Integration • Definition of the definite integral • Areas between curves	The integral is the second main concept introduced in calculus (the first is the derivative). It is introduced as a method for calculating areas under the graph of a continuous function. It uses again the limit of the estimates to arrive at the actual value. In the beginning, this definition is discussed independently of the derivative. The properties are then either proven or explained. The process of calculating the integral using the limit of the Riemann sum is not practical and serves little purpose. It is, however, important that the pre-service teachers understand the notion of the limit of the Riemann sum.	Individual or group problem solving on calculating definite integrals and areas between cartesian curves [15] A worksheet on possible errors in integration https://www.tes.com/teaching-resource/erica-s-errors-on-integration-11722282	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [14] [15]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			Technology can be used to estimate the value of the integral just like the table of values was used in evaluating the limit of a function. The most important result in this chapter is the Fundamental Theorem of Calculus, which connects the two main components of calculus – the derivative and the integral. This is also the formula that will be used to calculate the value of the integral. Just like the derivative, the integral has many applications. Lack of time prohibits the discussion of all the applications in this course. Only one application will be discussed, and that is calculating the areas of regions bounded by curves in the Cartesian plane.		

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Bachelor of Education Major in the Sciences

SYLLABUS GUIDE FOR DESIGNING A TRANSFORMATIVE CLASSROOM: TECHNOLOGY-ENHANCED PEDAGOGICAL INNOVATIONS FOR FUTURE LEARNING

This course will be taken by all pre-service teachers across science majorships.

Course Credits	3	Contact Hours	3 hours/week
Prerequisite/s	Core science content courses, foundational courses (e.g. principles of teaching, educational technology)		
Course Description	This course empowers pre-service science teachers to design transformative, technology-enhanced learning environments that bridge classroom, community, and industry. It develops their competence in integrating emerging educational technologies, such as PhET simulations, offline GenDiTool, game-based learning (GBL), and augmented/virtual reality (AR/VR), to create meaningful, context-sensitive science instruction. Learners explore ethical and responsible uses of Artificial Intelligence (AI), data literacy, and digital citizenship within science education. Course content includes: (1) foundations of technology-enhanced pedagogy; (2) inquiry and problem-based science learning; (3) designing tech-integrated lessons using context-appropriate tools; (4) community and industry-linked learning experiences; (5) ethical AI and data use in education; and (6) assessing technology-driven learning outcomes. Teaching methods emphasize active learning, collaborative design workshops, reflective practice, and guided micro-training sessions. Assessment tasks include digital learning prototypes, community partnership proposals, and reflective journals on technology ethics and integration. The culminating requirement is a technology-integrated lesson prototype or micro-training plan demonstrating the learner's ability to design, implement, and evaluate transformative, tech-supported science instruction. This course cultivates the content and skill competence of pre-service teachers in becoming Quality Filipino Science Teachers by equipping them with innovative, ethical, and context-responsive pedagogical skills (through reading, writing, and speaking) for future-ready classrooms.		

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
[PO 1] Demonstrate mastery of scientific concepts and principles. [PO 3] Utilize inquiry-based and 21st-century pedagogies in teaching science.	[CLO 1] Design and implement technology-integrated science lessons that demonstrate accurate and conceptually coherent disciplinary content, using inquiry- and problem-based resources to address defined learning goals and diverse learner needs.	[1.1.1] [1.2.1] [1.5.1] [4.1.1]
[PO 5] Integrate technologies to enhance the teaching of science.	[CLO 2] Critically evaluate the foundations of technology-enhanced pedagogy and select instructional	[1.2.1] [4.5.1]

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
	resources based on evidence-based justification, learning theory, and learner data to effectively address specific science learning goals and diverse learner needs.	
[PO 4] Utilize appropriate instructional resources and assessments, considering the diversity of learners. [PO 5] Integrate technologies to enhance the teaching of science.	[CLO 3] Develop digital learning prototype or micro-training plans that include measurable learning outcomes, aligned assessment strategies, and evaluation mechanisms to demonstrate the effective implementation and impact of transformative, technology-supported science instruction.	[1.3.1] [5.5.1]
[PO 6] Uphold socio-emotional learning (SEL) competence, professional, ethical, and lifelong practices.	[CLO 4] Analyze and apply principles of ethical AI, data literacy, and digital citizenship in concrete instructional design and classroom decision-making scenarios within science education.	[6.3.1] [7.4.1] [7.5.1]
[PO 4] Utilize appropriate instructional resources and assessments, considering the diversity of learners.	[CLO 5] Propose community and industry-linked learning experiences that incorporate educational technology to bridge classroom learning with a real-world context.	[1.3.1] [6.3.1]

Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 1] Design and implement technology-integrated science lessons that demonstrate accurate and conceptually coherent disciplinary content, using inquiry- and problem-based resources to address defined learning goals and diverse learner needs.	Technology-Integrated Lesson and Implementation Portfolio (if applicable) Complete ready-to-teach lesson plan and a supporting portfolio that provides evidence of its implementation and effectiveness with diverse learners.	- Lesson plan clearly aligns with learning goals and incorporates inquiry/problem-based approaches. - Demonstrates appropriate use of technology tools (e.g., {hET, AR/VR}) - Includes adaptations for diverse learner needs.
[CLO 2] Critically evaluate the foundations of technology-enhanced pedagogy and select instructional resources based on evidence-based justification, learning theory, and learner data to effectively address specific science learning goals and diverse learner needs.	Critical Analysis Paper or Annotated Resource Library Critical analysis that deconstructs pedagogical theories and justifies the selection of specific digital resources for a given teaching context.	- Paper/analysis critically evaluated pedagogical theories and their relevance to tech-enhanced learning. - Analysis shows depth of understanding and practical application. - Resource selections are justified based on learning goals and diversity
[CLO 3] Develop digital learning prototype or micro-training plans that include measurable	Digital Learning Prototype of Micro-Teaching Plan	Prototype/plan is innovative, functional, and clearly supports science learning.

Course Learning Outcomes	Summative Assessment Task	Performance Standard
learning outcomes, aligned assessment strategies, and evaluation mechanisms to demonstrate the effective implementation and impact of transformative, technology-supported science instruction.	Functional and innovative digital learning asset or a detailed training plan, complete with a framework for its implementation and evaluation.	- Includes a framework for implementation and evaluation. - Shows evidence of transformative potential in instruction.
[CLO 4] Analyze and apply principles of ethical AI, data literacy, and digital citizenship in concrete instructional design and classroom decision-making scenarios within science education.	Reflective Journal or Case Study Response Reflective analysis or case study response that applies ethical principles for technology use to authentic educational scenarios.	- Reflection demonstrates a clear understanding of ethical AI, data literacy, and digital citizenship. - Applies principles to realistic classroom scenarios. - Shows critical thinking about responsible technology use.
[CLO 5] Propose community and industry-linked learning experiences that incorporate educational technology to bridge classroom learning with a real-world context.	Community Partnership Proposal Feasible and well-researched proposal for a community or industry partnership that leverages technology to connect curriculum to real-world applications.	- The proposal is feasible, well-researched, and clearly links the curriculum to the community/industry. - Integrates appropriate educational technology. - Includes objectives, activities, and a plan for collaboration.
Culminating Outcome	Integrative Project: Technology-Integrated Lesson Prototype or Micro-Teaching Plan	High-Quality Design The prototype or plan is innovative, well-structured, and context-sensitive. Ethical Integration Demonstrates responsible and ethical use of technology that includes AI and data Transformative Impact Shows potential to create engaging, meaningful, and future-ready science learning experiences. Professionalism Upholds integrity and aligns with the goals of becoming a “Quality Filipino Science Teacher.”

Note: TEIs can add additional matrices to reflect alignment with their institutional outcomes.

Suggested Learning Plan

Note: Please accommodate the course orientation and the major examination in the topic programming schedule.

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
1	1.1. Explain the core principles of transformative learning and technology-enhanced pedagogy (TPACK). [CLO2] 1.2. Demonstrate and apply 21st-century skills within science-specific contexts by engaging in scientific inquiry, evidence-based reasoning, data analysis and interpretation, computational and systems thinking, collaborative problem-solving of authentic scientific issues, and clear communication of scientifically grounded explanations. [CLO1]	Unit I: Foundations of Transformative, Technology-Enhanced Learning A. The Concept of the Transformative Classroom B. Introduction to the TPACK Framework C. 21st-Century Skills in Science Education	Introductory lecture & class discussion on "<i>What makes a classroom transformative?</i>" Jigsaw activity Groups explore and present on different components of the TPACK framework.	Diagnostic: - Pre-course survey on prior experience with educational technology Formative: - Group TPACK model presentation with real-world teaching examples.	[1] [2]
2	2.1 Analyze different models of inquiry-based learning (IBL) and problem-based learning (PBL). [CLO2]	Unit II: Inquiry and Problem-Based Science Learning A. Models of IBL (e.g., Guided, Structured, Open)	Case Study Analysis Examine video examples of IBL and PBL in science classrooms. Workshop	Formative: - Peer feedback on the IBL/PBL activity outline. - Short reflection paper on the strengths of	[3] [4]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	2.2 Design a basic IBL or PBL science activity outline. [CLO1]	B. Elements of Effective PBL C. Aligning IBL/PBL with Learning Goals	In pairs, draft a one-page outline for an IBL or PBL activity on a chosen science topic.	inquiry-driven approaches.	
3-4	3.1 Evaluate a variety of digital tools (e.g., PhET, GBL, AR/VR) for their pedagogical value. [CLO2] 3.2 Select appropriate technologies to address specific learning goals and diverse learner needs. [CLO2]	Unit III: Designing Tech-Integrated Lessons: Tools and Selection A. Survey of EdTech Tools: Simulations (PhET), Game-Based Learning (GBL), AR/VR apps, Offline tools (GenDTool) B. The SAMR Model for Technology Integration C. Universal Design for Learning (UDL) Principles	Hands-on Learning Stations Small groups rotate through stations to explore PhET, a GBL platform, and an AR app. Tool Evaluation Matrix Pre-service teachers use a rubric to evaluate 3 tools based on learning goals, UDL, and SAMR level.	Formative: • Completed Tool Evaluation Matrix Summative (Part of Final Project): • Task 1: Digital Tool Rationale. A written justification for technology choices in their developing lesson prototype.	[5] [6] [7]
5	4.1 Define ethical AI, data literacy, and digital citizenship in an educational context. [CLO4] 4.2 Analyze ethical dilemmas and decision-making using structured ethical frameworks. [CLO4]	Unit IV: Ethical Dimensions: AI, Data Literacy, and Digital Citizenship A. Introduction to AI in Education (AIED) B. Responsible Data Use and Privacy C. Fostering Digital Citizenship in Students	Think-Pair-Share On scenarios involving AI-generated content and learner data privacy. Class Debate On a topic like "Should learners use AI chatbots for homework help?"	Formative: • Submission of 3 key takeaways from the debate and readings. Summative: • Task 2: Reflective Journal Entry 1 on ethical considerations for their project.	[8] [9]
6	5.1 Propose ways to connect science classroom learning with local community or industry issues. [CLO5] 5.2 Design and justify how technology can	Unit V: Bridging Classrooms with Community and Industry A. Models for Community-Engaged Learning	Brainstorming Session "Local Context Map" - Pre-service teachers identify community assets/issues relevant to science topics.	Formative: • Mind map of potential community/industry links for a chosen unit. Summative (Part of Final Project):	[10]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	facilitate these connections. [CLO5]	B. Industry Partnerships (e.g., guest speakers, virtual tours) C. Using Tech for Collaboration and Data Collection	Guest Speaker A science teacher or professional who has implemented community-linked projects.	Task 3: Community Partnership Proposal Outline integrated into the final lesson prototype.	
7-8	6.1 Design a comprehensive, technology-integrated science lesson plan (the prototype). [CLO1] 6.2 Develop a plan for implementing and evaluating the lesson's impact. [CLO3]	Unit VI: Prototype Design & Development Workshop A. Lesson Planning Frameworks (e.g., 5E Model) B. Designing Formative Assessments for Tech-Driven Lessons C. Evaluation Strategies	Collaborative Design Workshops In small groups, pre-service teachers work on their lesson prototypes and receive feedback from peers and instructors. Micro-Teaching Session Pre-service teachers present a 5-minute "slice" of their lesson to a small group.	Formative: - Draft lesson plan components submitted for feedback. - Peer feedback on the micro-teaching session. Summative: - Final Project Draft submission for preliminary review.	[11]
9	7.1 Present the final technology-integrated lesson prototype/ micro-training plan. [CLO3] 7.2 Justify design choices based on pedagogical principles, ethics, and context. [CLO3]	Unit VII: Culminating Activity: Project Presentations & Exhibition A. Effective Presentation Skills B. Peer Learning and Feedback	Final Project Exhibition Pre-service teachers present their complete prototypes to the class and a panel (if possible) in a gallery walk or short presentation format. Peer Assessment Pre-service teachers use a rubric to provide constructive feedback on peers' projects.	Summative: - Final Project Submission: Technology-Integrated Lesson Prototype or Micro-Training Plan. - Final Presentation. - Task 4: Reflective Journal Entry 2 on the design process and learning journey.	[12]

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Bachelor of Education Major in Social Studies

SYLLABUS GUIDE FOR Social Studies Foundations and the Curriculum

Course Credits	3 units	Contact Hours	
Prerequisite/s			
Course Description	The course provides an overview of the historical development of the Social Studies Curriculum in the Philippines in terms of the articulation of its definition, goals, framework and organization of content and skills. It also examines the disciplines of History, Geography, Economics, Political Science, Sociology, and other Social Sciences as sources of content and relates this foundational knowledge to the present design and structure of the Social Studies curriculum taught in schools. At the end of the course, the Pre-service teachers are expected to articulate the significance of Social Studies in Secondary Education and reflect on their values and goals for them to be able to formulate their personal philosophy as Social Studies teachers.		

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
[PO 1] Demonstrate broad, coherent, and integrative knowledge of the core social science disciplines—history, geography, economics, political science, sociology, and anthropology—as bases for specialized, rigorous, and independent social studies instruction.	[CLO 1] Construct a comparative analysis of Social Studies as an interdisciplinary basic education learning area and the social sciences as academic disciplines. [CLO 2] Critically examine the history of Social Studies as a learning area in basic education in terms of its goals and content organization, [CLO 3] Analyze how key concepts, skills, and methods in history, geography, economics, sociology/anthropology, and political science are organized as content of Social Studies.	[1.1.1] [1.2.1] [2.1.1] [7.1.1] [7.4.1]

Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Note: TEIs can add additional matrices to reflect alignment with their institutional outcomes.

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 2] Critically examine the history of Social Studies as a learning area in basic education in terms of its goals and content organization.	Journal article review (group assessment)	• Clear and accurate presentation of the article's main arguments • Provides insights and applications to the Philippine context/classrooms • Well-organized paragraphs, with a clear introduction and conclusion • Writing is precise and free from grammar, spelling, or citation errors
[CLO 1] Construct a comparative analysis of Social Studies as an interdisciplinary basic education learning area and the social sciences as academic disciplines. [CLO 2] Critically examine the history of social studies as a learning area in basic education in terms of its goals and content organization. [CLO 3] Analyze how key concepts, skills, and methods in history, geography, economics, sociology/anthropology, and political science are organized as content of Social Studies.	Final Exam (individual assessment) • short-answer and constructed response types Suggested Assessment Tasks Let the Learners construct a Venn Diagram to differentiate social studies from social sciences; maybe a timeline or an appropriate graphic organizer that will outline the historical development of the Social Studies Curriculum (Individual or by group)	D. Accuracy of answers E. Soundness of arguments and/or reasoning ability

Suggested Learning Plan

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
1-2	Differentiate social studies and social science.	1. Social Sciences and Social Studies Defined	Think-Square Share or Think-Pair Share	Graphic Organizers and Presentation of the Outputs	[1] [4] [16] [19] [20]
	Describe the Social Studies Curriculum Framework.		Where students may construct a Venn Diagram or come up with	The teacher may prepare the rubrics for the Graphic organizers	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	Explain the rationale of Social Studies teaching in basic education.	2. Framework of the Social Studies Curriculum I. Nature and purpose of Social Studies 11. Definition of Social Studies 12. Purposes or traditions of Social Studies	graphic organizers to differentiate Social Studies and Social Science, describe the goals, emphasis of SS, etc. Classroom survey Students determine whether the statements/situations can be considered Social Studies or not Social Studies. Lecture-discussion Think-Pair-Share Students answer questions posed during the lecture, discuss their answer with their peer/partner, then share their answers with the class.	and the Oral Presentation of the outputs Reflective Essay 1 How I was taught/ How I will teach Social Studies? Use the following guide questions to write your essay: 1. What do you remember studying and doing in Social Studies classes when you were in elementary/ secondary school? 2. Did you enjoy Social Studies? Why or why not? 3. Do you think you learned anything of importance? Why or why not? 4. Do you want to teach Social Studies in the ways that it was taught to you? Why or why not?	
3-4	Discuss the history of Social Studies education.	3. History of Social Studies education a. Origin and definition of Social Studies as a learning area in secondary schools b. Goals and content of Social Studies in different time periods	Lecture-discussion Constructing a timeline Students create a timeline based on the given reading material, indicating important developments in the Social Studies curriculum. Oral presentation	Construct a Timeline/ Presentation of the Group Outputs Teacher prepares a sample rubric for the output and for the oral presentation Groupwork 1 Interview high school students in a public/ private secondary school. Ask why they think they have to study Social Studies. Categorize their answers and compare them with the goals of Social Studies when it was first implemented as a learning area in school	[2] [17] [22]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
5-6	Discuss the nature of citizenship education. Analyze different conceptions of a “good citizen.” Identify essential skills to be developed in citizenship education.	c. Citizenship education as the enduring goal of Social Studies	Interactive Lecture Song Analysis of Noel Cabangon’s “Mabuting Pilipino” Close reading (Students answer questions based on the reading material)	Seatwork 1 List down the characteristics of a good citizen. Explain how the teaching of Social Studies helps develop those characteristics.	[2] [10] [13] [25]
7-8	Analyze how key concepts, skills, and methods in history are organized as content of Social Studies.	d. The Social Sciences as sources of content for Social Studies: History	Interactive Lecture Close reading - Students answer questions based on the reading material. - Students examine the existing Curriculum Guide in AP Grades 7-10 so they can analyze key concepts, skills, and methods in History integrated in the content of Social Studies in the Secondary education	Groupwork 2 Design an infographic that will answer the following questions: - What is Social Studies? - What is history? - What should students learn from history?	[11] [14] [23]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
9	Analyze how key concepts, skills, and methods in geography are organized as content of the Social Studies curriculum.	e. The Social Sciences as sources of content for Social Studies: Geography	Sticky Note Discussions Form groups. Using sticky notes, students in a group choose which part of the given reading material they like to focus on and discuss in class. Close Reading Students examine the existing Curriculum Guide in AP Grades 7-10 so they can analyze key concepts, skills, and methods in History integrated in the content of Social Studies in the Secondary education	Seatwork 2: Textbook review Students review a high school Social Studies textbook (e.g., in Grades 7-10) and identify which part or chapter covers geography. Then they will determine what geographic skill/s the chapter intends to teach. Students may use a matrix in doing the review.	[3] [14] [18] [21]
10-11	Analyze how key concepts, skills, and methods in economics are organized as content of the Social Studies curriculum.	f. The Social Sciences as sources of content for Social Studies: Economics	Lecture-Discussion Empty-Outline Completion (Students fill in a partially completed outline of the day's lecture) Close Reading Students examine the existing Curriculum Guide in AP Grades 7-10 so they can analyze key concepts, skills, and methods in History integrated in the content of Social Studies in the Secondary education	Seatwork 3 Write a position statement in which you defend economics as an important component of the secondary school Social Studies curriculum.	[7] [24] [26]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
12-13	Analyze how key concepts, skills, and methods in sociology and anthropology are organized as content of the Social Studies curriculum.	g. The Social Sciences as sources of content for Social Studies: Sociology and Anthropology	Lecture-Discussion Close Reading Students examine the existing Curriculum Guide in AP Grades 7-10 so they can analyze key concepts, skills, and methods in History integrated in the content of Social Studies in the Secondary education	Groupwork 3: Video Analysis Doll Test: Effects of racism on children https://www.youtube.com/watch?v=QRZPw-9sJtQ • What insights can be drawn from the "doll test" about how children form ideas about race and racial identities? • As future Social Studies teachers, what classroom practices can you implement to ensure all students, regardless of their background, feel a strong sense of belonging and self-worth?	[13] [15] [26]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
14-15	Analyze how key concepts, skills, and methods in sociology and anthropology are organized as content of the Social Studies curriculum.	h. The Social Sciences as sources of content for Social Studies: Political Science	Close Reading Students examine the existing Curriculum Guide in AP Grades 7-10 so they can analyze key concepts, skills, and methods in History integrated in the content of Social Studies in the Secondary education Discussion Relay - Students pose questions on what they want to learn based on the given set of readings. - The list of questions is arranged sequentially. - The teacher begins the discussion by answering the first question, then calls on a student to continue the discussion by answering the next question. The discussion relay continues until all the questions listed are answered. Collaborative class notes The teacher may ask volunteers to take down notes based on the discussion, using Google Docs, a whiteboard, or any online collaborative document to produce collaborative class notes as an output.	Groupwork 4 Debate or Structured Academic Controversy (SAC) on a current topic about the government and governmental processes, political socialization, or democratic values	[8] [14] [26]
16	Assess how the goals of Social Studies are articulated in the Araling Panlipunan K to 12 curriculum.	4. The Social Studies curriculum in the Philippine basic education: 7. Framework and goals	A. Lecture-discussion B. Using a Venn Diagram, compare the goals of Social Studies indicated in the DepEd AP Curriculum guide and the US	Seatwork 4 Make a concept map illustrating how the goals of Social Studies influence teachers' choice of instructional strategies.	[5] [6]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
			National Curriculum Standards for Social Studies		
17	Describe the curriculum organization of the content of Social Studies.	4. The Social Studies curriculum in the Philippine basic education: 8. Organization of content	Curriculum mapping As a group activity, students create a curriculum map of the content of the Social Studies curriculum. Curriculum maps may be done as follows: D. What social science discipline is present in each Social Studies subject/grade level E. What pattern or curriculum organization is followed in sequencing the content of each Social Studies subject/grade level Lecture-discussion	Seatwork 5 Using online resources, write a one-page critique of the expanding horizons curriculum organization	[5] [6]
18	Explain the interconnectedness of the social science disciplines in the K to 12 Social Studies curriculum. Articulate a personal philosophy for teaching Social Studies.	5. Synthesis	Group Discussion	Reflective Essay 2 Why do I teach Social Studies?	[9]

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Bachelor of Education Major in Values Education

SYLLABUS GUIDE FOR SUSTAINABILITY AND ECOLOGICAL ETHICS IN VALUES EDUCATION

Course Credits	3 units	Contact Hours	
Prerequisite/s			
Course Description	This course provides an overview of various perspectives on sustainability and ecological ethics, with an emphasis on issues related to sustainable development and emerging technologies that have a profound effect on ecological systems. Through critical analysis of ethical theories and real-world cases, learners will learn to navigate complex environmental dilemmas and craft responsible, justice-oriented solutions. The course introduces the philosophical foundations and practical applications of sustainability and the ethical frameworks that guide human interactions with the environment. It also provides a comprehensive exploration of the history and foundational principles of environmental stewardship, tracing key developments from classical ethics to contemporary ecological philosophies. Central to the course is the study of sustainability frameworks, which offer actionable pathways for ecological resilience and responsible stewardship anchored on Filipino identity and values. Learners will engage in interactive seminars, collaborative debates, and immersive field experiences to apply ethical frameworks to real-world scenarios. By the end of the course, learners are expected to develop and implement a comprehensive sustainability and ecological ethics action plan tailored to a specific community, organization, or ecosystem.		

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
[PO 1] Demonstrate deep philosophical, spiritual, psychological, socio-emotional, cultural, interdisciplinary, and moral-ethical grounding in values education that is anchored on Filipino identity and responsive to diverse learning needs. [PO 3] Demonstrate Filipino virtues, civic responsibility, intercultural understanding, and global citizenship, embodying 21st-century competencies and futures-oriented perspectives.	[CLO 1] Critically evaluate classical and contemporary ecological philosophies and sustainability paradigms, anchored on Filipino identity and cultural values, to assess their relevance and application in addressing environmental challenges.	[1.1.1] [6.1.1]
[PO 4] Apply critical thinking, community of inquiry, restorative practice, and sustainability principles in values and peace education through school-community advocacy and other programs.	[CLO 2] Demonstrate the ability to navigate complex ecological issues by assessing their impact on sustainability and propose strategies to mitigate negative effects.	[6.1.1] [6.2.1]

[PO 9] Practice reflective, compassionate, and values-driven teaching leadership that promotes human dignity, inclusion, environmental ethics and sustainability, social justice, and ethical practice in diverse learning environments.	[CLO 3] Design a comprehensive sustainability action plan for a chosen community or ecosystem integrating Filipino indigenous ecological wisdom and ethics. Collaborate in experiential learning to promote ecological stewardship, ethical decision-making, and foster community-based sustainability initiatives.	[2.5.1] [6.2.1]
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Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 1] Critically evaluate classical and contemporary ecological philosophies and sustainability paradigms, anchored on Filipino identity and cultural values, to assess their relevance and application in addressing environmental challenges.	Comparative Analysis and Application of ecological philosophies and sustainability paradigms through a Hybrid Format F. Begin with a matrix for structured comparison. G. Follow with a short narrative essay that interprets the matrix, explains key insights, and applies them to real-world contexts. Critical Essay: Reimagining Sustainability Through Cross-Cultural Perspectives Write a 1200–1500 word essay analyzing a sustainability issue (e.g., deforestation, climate migration, water access) through the lenses of IEK, Ecofeminism, and Postcolonial Environmentalism. Reflective Journal Entry Prompt: “Which sustainability paradigm do you think best addresses climate justice, and why?”	Depth of critical evaluation of ecological philosophies. Clearly outline the core assumptions, principles, and goals of each. Comparative Depth: Ability to identify and explain similarities/differences Application: Relevance and creativity in applying paradigms to real-world issues Presentation: Clarity, organization, and effective use of chosen format Critical Reflection: Insightful evaluation of strengths, limitations, and future relevance Criteria: Conceptual Understanding - Deep grasp of all three paradigms Critical Analysis - Insightful critique of mainstream models Cultural Sensitivity - Respectful and nuanced Communication & Structure - Clear, persuasive, well-organized

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 2] Demonstrate the ability to navigate complex ecological issues by assessing their impact on sustainability and propose strategies to mitigate negative effects.	Critical Analysis of Environmental Risks of a specific community or ecosystem which includes: Identification of risks: Pollution, deforestation, biodiversity loss, climate change impacts, resource depletion, etc. Root causes: Human activities, policy gaps, economic pressures, cultural practices. Consequences: Ecological degradation, health impacts, economic vulnerability, cultural disruption. Stakeholder perspectives: Consider local residents, government, NGOs, businesses, and marginalized groups. Propose practical solutions that address the ecological risks and negative effects while prioritizing social justice.	Criteria: Depth of analysis and accuracy of risk identification Integration of ecological philosophies and sustainability paradigms Creativity and feasibility of proposed solutions Attention to social justice and equity considerations Clarity, organization, and presentation style
[CLO 3] Design a comprehensive sustainability action plan for a chosen community or ecosystem integrating Filipino indigenous ecological wisdom and ethics. Collaborate in experiential learning to promote ecological stewardship, ethical decision-making, and foster community-based sustainability initiatives.	Sustainability Action Plan Portfolio • Community Profile • Action Plan Document • Presentation Slides • Peer Review Summary and Iteration Notes	Criteria: Community Insight - Deep understanding and relevance Action Plan Design - Clear, feasible, ethical, and measurable Presentation & Iteration - Engaging, well-structured, responsive to feedback
[CLO 3] Design a comprehensive sustainability action plan for a chosen community or ecosystem integrating Filipino indigenous ecological wisdom and ethics. Collaborate in experiential learning to promote ecological stewardship, ethical decision-making, and foster community-based sustainability initiatives.	Implement Sustainability Project in a specific community	Criteria: Feasibility & Resources - Plan is realistic, resource needs are clearly identified, and strategies for sustainability are strong. Innovation & Creativity - Solutions are highly innovative, context-sensitive, and adaptable to future challenges. Monitoring & Evaluation - Clear indicators and methods for tracking ecological and social outcomes are included. Presentation & Communication - Plan is presented in a professional, engaging, and well-organized

Note: TEIs can add additional matrices to reflect alignment with their institutional outcomes.

Suggested Learning Plan

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
1-2	Critically evaluate classical and contemporary ecological philosophies and sustainability paradigms to assess their relevance and application in addressing environmental challenges. Reflect on philosophical and spiritual perspectives about the existence of the world. Differentiate the fundamental perspectives within environmental ethics	I. Critically evaluate classical and contemporary ecological philosophies and sustainability paradigms 16. Why Does the World Exist? A Philosophical Foundation for Environmental Stewardship 17. Introduction to Environmental Ethics D. What is Environmental Ethics? E. Anthropocentrism F. Biocentrism G. Ecocentrism C. Conservation and Biodiversity • Origin and importance of Biodiversity • Threats to Biodiversity • Preserving Biodiversity	Cosmic Zoom Show a short video zooming out from Earth to the universe. Discussion question: Why does this world exist? Reflection Prompt: If the world is a gift, how should we treat it? Role Play 2. Divide the class into three groups: Anthropocentrists, Biocentrists, and Ecocentrists. Let each group research for the basic concept of the ecological view assigned to them. 17. Give a real-world environmental dilemma (e.g., deforestation for agriculture, dam construction, mining in indigenous lands). • Groups prepare and present their ethical stance and propose solutions based on their assigned philosophy.	Design a campaign, poster, or short video answering: “Why does the world exist, and what is our role in it?” Criteria: Depth of Reflection Integration of Perspectives Ethical Reasoning Creativity & Presentation Comparative Analysis and Application of ecological philosophies and sustainability paradigms through a Hybrid Format H. Begin with a matrix for structured comparison. I. Follow with a short narrative essay that interprets the matrix, explains key insights, and applies them to real-world contexts. Criteria Depth of critical evaluation of ecological philosophies. Clearly outline the core assumptions, principles, and goals of each.	[1] [2] [3] [4] [5] [6] [7] [8]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		3. Planetary Boundaries		Prompt: "Which sustainability paradigm do you think best addresses climate justice, and why?"	
5-6	Analyze various critiques and cross-cultural perspectives in environmental ethics	2. Critiques and Cross-Cultural Perspectives 1. Indigenous Ecological Knowledge 2. Postcolonial Environmentalism	"Voices of the Land" Story Circle Share excerpts from Indigenous environmental narratives or invite a local Indigenous speaker. Think-Pair-Share Question: "Can environmental justice be achieved without addressing gender and colonial histories?"	Critical Essay: Reimagining Sustainability Through Cross-Cultural Perspectives Write a 1200–1500 word essay analyzing a sustainability issue (e.g., deforestation, climate migration, water access) through the lenses of IEK, Ecofeminism, and Postcolonial Environmentalism. Criteria: Conceptual Understanding - Deep grasp of all three paradigms Critical Analysis - Insightful critique of mainstream models Cultural Sensitivity - Respectful and nuanced Communication & Structure - Clear, persuasive, well-organized	[12] [13] [14] [15]
7-9	Demonstrate the ability to navigate complex ecological issues by assessing their impact on sustainability and propose strategies to mitigate negative effects. Apply ethical reasoning in analyzing case studies,	II. Navigate complex ecological issues with justice-oriented, ethical solutions - Environmental Risks - Environmental Justice and Equity:	Case study: Examine a case study (e.g., toxic waste in marginalized communities, water access in rural areas). Lecture-discussion Group Activity: Create a map or diagram showing stakeholders,	Critical Analysis of Environmental Risks of a specific community or ecosystem which includes: Identification of risks: Pollution, deforestation, biodiversity loss, climate change impacts, resource depletion, etc.	[16] [17] [18] [19] [20] [21] [22] [23]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	real-world dilemmas and issues on environmental justice and equity Evaluate the impact of emerging technologies and policies on sustainability and environmental ethics Analyze local ecological issues by examining their root causes and evaluating their short- and long-term impacts on sustainability. Formulate culturally grounded mitigation strategies that draw from Filipino ecological values, indigenous practices, and community-based approaches to reduce environmental harm.	4.1 Case studies on pollution 4.2 Climate displacement 4.3 Resource access - Emerging Technologies 1. AI, IoT, Blockchain, etc. and their environmental footprints 2. Geoengineering and Climate Tech: Carbon capture, solar radiation management—promise vs. peril - Policy and Governance Ethics: 5. Global treaties 6. Local policies 7. Ethical trade-offs	power dynamics, and justice implications. Climate Displacement Simulation Scenario: Rising sea levels force relocation of a coastal village. Role-play negotiations around housing, compensation, and cultural preservation. Debrief: Reflect on ethical dilemmas and equity concerns. Tech Detective Activity Work in pairs to research one technology. Focus on energy consumption, e-waste, carbon emissions, supply chain, risks, benefits, and justice implications. Output: Create a mini-report or infographic showing the tech's footprint and ethical concerns. Lecture-discussion Ethical Trade-Offs Simulation Present a scenario (e.g., building a dam for energy vs. displacing communities). Assign students stakeholder roles (government, local residents, environmentalists, developers). Activity: Simulate a town hall meeting to debate and vote on the proposal. Reflection: Discuss ethical tensions and decision-making challenges.	Root causes: Human activities, policy gaps, economic pressures, cultural practices. Consequences: Ecological degradation, health impacts, economic vulnerability, cultural disruption. Stakeholder perspectives: Consider local residents, government, NGOs, businesses, and marginalized groups. Propose practical solutions that address the ecological risks and negative effects while prioritizing social justice. Criteria: - Depth of analysis and accuracy of risk identification - Integration of Filipino ecological values, indigenous practices and sustainability paradigms - Creativity and feasibility of proposed solutions - Attention to social justice and equity considerations - Clarity, organization, and presentation style	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
10-13	Design a comprehensive sustainability action plan for a chosen community, or ecosystem. Conduct community profiling and needs assessment Design a Sustainable Action Plan based on the result of profiling and needs assessment for a specific community to address environmental concerns Present Action Plan for critiquing and feedback	III. Design a comprehensive sustainability action plan A. Community Profiling and Needs Assessment B. Participatory Sustainability Projects: Urban gardens, waste audits, biodiversity mapping C. Action Plan Design: Goals, metrics, timelines, and ethical considerations D. Presentation and Peer Review of Plans: Feedback iteration Implementation strategies	“Know Your Community” Profiling Workshop Students identify a community and complete a profile including: • Demographics • Environmental issues • Social and economic conditions • Existing sustainability efforts Participatory Project Planning Design a sustainability project with community impact. Possible options: Urban garden, composting system, recycling campaign, native plant restoration, etc. Components: • Goals (SMART) • Metrics for success • Timeline of implementation • Ethical considerations (justice, equity, inclusion) Sustainability Action Plan Review	Sustainability Action Plan Portfolio • Community Profile • Action Plan Document • Presentation Slides • Peer Review Summary and Iteration Notes Criteria: Community Insight - Deep understanding and relevance Action Plan Design - Clear, feasible, ethical, and measurable Presentation & Iteration - Engaging, well-structured, responsive to feedback	[24]
14-18	Collaborate in experiential learning to promote ecological stewardship, ethical decision-making and foster community-based sustainability initiatives. Implement the Sustainable Action Plan in the identified community Evaluate the process and the initial result of the project implemented	IV. Collaborate in experiential learning to promote ecological stewardship 7.1 Service Learning and Citizen Science: Models for community engagement 7.2 Reflective Practice: Journaling, storytelling, and peer feedback as	Orientation Discuss ethical engagement and inclusivity strategies. Preparation Documents Logistics Reflective Journal Entry	Implement Sustainability Project in a specific community Criteria: Feasibility & Resources - Plan is realistic, resource needs are clearly identified, and strategies for sustainability are strong. Innovation & Creativity - Solutions are highly innovative, context-sensitive, and adaptable to future challenges.	[25] [26] [27]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	Reflect on the experiences in the implementation of the project.	tools for ethical growth		Monitoring & Evaluation -Clear indicators and methods for tracking ecological and social outcomes are included. Presentation & Communication - Plan is presented in a professional, engaging, and well-organized	

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Bachelor of Education Major in Arts and Culture Education

SYLLABUS GUIDE FOR FOUNDATIONS OF ARTS AND CULTURE EDUCATION

Course Credits	3 units	Contact Hours	
Prerequisite/s			
Course Description	This course introduces pre-service teachers to the fundamental concepts, frameworks, and methods that inform artistic and cultural practices in traditional and contemporary societies. It emphasizes artistic traditions while cultivating critical, creative, and reflexive engagement with cultural expressions. By the end of the course, pre-service teachers are prepared to design, implement, and assess arts-integrated and culture-based education that empowers learners and communities. The course examines theories, frameworks, and historical roots of artistic expressions embedded in Filipino heritage and indigenous knowledge systems. It explores traditional and contemporary cultural expressions across music, dance, theater, and visual arts. Attention is also given to contemporary issues such as globalization, sustainability, cultural policy, and ethics, alongside the use of digital tools for documenting and teaching the arts. Pre-service teachers are expected to engage in theoretical explorations and critical discussions, requiring them to analyze artistic and cultural practices in both traditional and contemporary contexts and to articulate their educational implications. At the end of the course, pre-service teachers are expected to demonstrate a comprehensive understanding of arts and culture education and propose integrative and responsive applications suited to diverse learners and communities.		

Program Outcomes	Course Learning Outcomes	Mapping to the PPST Beginning Teacher Indicators
[PO 1] Advocate national identity, and patriotism through evidence-based educational, cultural, and artistic practices derived from Filipino history and heritage.	[CLO 1] Analyze fundamental concepts, theories, and frameworks in arts and culture education to explain the historical, social, and indigenous roots of Filipino artistic expressions.	[1.1.1] [1.2.1] [2.1.1] [2.2.1] [6.3.1]
[PO 2] Applies creative, meta-creative, and innovative skills in education across various artistic cultural expressions for educational and community learning.	[CLO 2] Describe various artistic forms across music, dance, theater, and visual arts and demonstrate basic creative interpretation through introductory analytical or reflective work. [CLO 3] Design introductory arts-integrated and culture-based learning experiences using appropriate pedagogical strategies and digital/documentation tools responsive to contemporary issues.	[3.5.1] [4.1.1] [4.3.1]

[PO 3] Develops inclusive, contextually relevant, and culturally grounded learning experiences anchored on the meanings and values of creativity in changing life-worlds.	[CLO 4] Examine contextually relevant cultural practices and relate them to meaningful, culturally grounded learning experiences.	[3.5.1] [4.1.1] [4.3.1]
[PO 6] Advocates sustainability through collaborative arts and culture education, environmental consciousness, heritage conservation, and community resilience with artists, educators, cultural workers, and communities.	[CLO 5] Identify opportunities for sustainability, cross-disciplinary collaboration, and heritage conservation by analyzing cultural practices, community contexts, and basic pedagogical principles in arts and culture education.	[6.1.1] [6.4.1]
[PO 10] Empowers learners and communities through artistically and culturally enriched education, fostering creative and critical thinking, empathy, and lifelong learning.	[CLO 6] Propose integrative, community-responsive applications of arts and culture education that support heritage preservation and empower diverse learners and communities.	[6.1.1] [6.4.1]

Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 1] Analyze fundamental concepts, theories, and frameworks in arts and culture education to explain the historical, social, and indigenous roots of Filipino artistic expressions.	A written paper that examines key theories, historical and indigenous influences, and contextual frameworks shaping Filipino arts.	Students demonstrate a clear understanding of foundational theories and critically explain how Filipino artistic expressions are shaped by historical, social, and indigenous contexts.
[CLO 2] Describe various artistic forms across music, dance, theater, and visual arts and demonstrate basic creative interpretation through introductory analytical or reflective work.	Short reflective/analytical entries describing different art forms and showcasing basic creative interpretation (e.g., a brief movement sketch, sound exploration, image storyboard).	Students accurately describe major artistic forms and produce introductory creative/reflective outputs that show basic interpretation grounded in course concepts.
[CLO 3] Design introductory arts-integrated and culture-based learning experiences using appropriate pedagogical	A simple, culture-based learning activity or lesson that integrates arts with basic pedagogical strategies and uses at least one digital or documentation tool.	Students design clear, age-appropriate, arts-integrated learning activities that demonstrate cultural relevance, thoughtful pedagogy, and responsible use of digital tools.

Course Learning Outcomes	Summative Assessment Task	Performance Standard
strategies and digital/documentation tools responsive to contemporary issues.		
[CLO 4] Examine contextually relevant cultural practices and relate them to meaningful, culturally grounded learning experiences.	A short report or visual map identifying a local cultural practice and explaining how it can be translated into a meaningful learning experience.	Students identify and contextualize relevant cultural practices and effectively relate them to grounded, meaningful educational applications.
[CLO 5] Identify opportunities for sustainability, cross-disciplinary collaboration, and heritage conservation by analyzing cultural practices, community contexts, and basic pedagogical principles in arts and culture education.	A short analytical or position paper discussing potential sustainability initiatives, collaborations, or conservation strategies emerging from a selected cultural practice.	Students show the ability to examine cultural practices using community and pedagogical lenses and articulate feasible, responsible opportunities for sustainability, collaboration, or conservation.
[CLO 6] Propose integrative, community-responsive applications of arts and culture education that support heritage preservation and empower diverse learners and communities.	A final written or digital project that outlines an integrative initiative or program for community empowerment and heritage preservation.	Students develop a coherent, well-justified proposal that integrates course concepts and demonstrates responsiveness to community needs, learner empowerment, and heritage preservation goals.

Note: TEIs can add additional matrices to reflect alignment with their institutional outcomes.

Suggested Learning Plan

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
1-2	Explain key concepts and definitions in arts and culture education. [CLO 1]	I. Introduction to Arts & Culture Education A. Key Concepts and Definitions	Concept Mapping Students create a visual map linking key terms	Short Analytical Essay (500 words) Explain two theoretical frameworks and discuss their	[1] [2] [3] [4] [5] [6] [8] [11] [12] [13] [14] [20] [21]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	Analyze historical, social, and indigenous influences shaping Filipino artistic expressions. [CLO 1] Describe major artistic forms across music, dance, theater, and visual arts. [CLO 2]	- Arts education vs. culture education - Cultural literacy and aesthetic education - Creative industries and cultural sustainability - Cultural identity and nation-building - Contextuality and place-based learning - Indigenous knowledge systems (IKS) B. Historical and Indigenous Roots of Filipino Arts - Pre-colonial artistic systems - Colonial transformations (Spanish, American influences) - Postcolonial and decolonial perspectives - Indigenous and ethnolinguistic artistic traditions	(culture, identity, creativity, contextuality). Small group synthesis discussion. Think–Pair–Share Prompt: <i>Is arts education different from culture education? Why does it matter in the Philippine context?</i> Timeline Construction Activity Groups construct a visual timeline of Filipino artistic transformation (Precolonial → Colonial → Contemporary). Case Analysis Discussion • Analyze one indigenous or folk tradition and identify layers of influence. Guided Critical Dialogue Prompt: <i>How did colonization reshape Filipino artistic identity?</i>	relevance to Philippine arts education. Group Presentation Tracing the Cultural Evolution of a Selected Filipino Art Form (Rubric criteria: historical depth, clarity of analysis, use of sources, critical insight) Cultural Resource Paper (Individual Output) Students submit a 2–3 page paper that includes: - Description of one local cultural practice - Its historical and social context - Its potential use in an arts classroom	
3-5	Explain major interdisciplinary theories that inform artistic development, creativity, and learning in arts education. [CLO 1] Analyze how psychological, constructivist, and experiential learning theories shape teaching and learning in arts and culture education. [CLO 1]	II. Interdisciplinary Foundations of Arts & Culture Education A. Artistic Development and Aesthetic Growth - Viktor Lowenfeld’s Stages of artistic development - Michael Parsons’ Stages of Aesthetic Response B. Intelligence, Creativity, and Motivation	Interactive Concept Mapping Students collaboratively construct a visual map of interdisciplinary theories linking psychological, constructivist, experiential, and Philippine perspectives. Case Analysis • Students analyze sample arts classroom scenarios and identify which	Group Presentation Interdisciplinary Theories in Arts & Culture Education Students present an assigned theory or framework and discuss: <i>Key principles</i> <i>0. Educational implications</i> <i>1. Application in arts education</i>	[39] [40] [41] [42] [43] [44] [45] [46] [47] [48] [49] [50] [51] [52] [53] [54]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	Examine Philippine intellectual frameworks as foundations for culturally responsive arts and culture education. [CLO 1] Apply selected interdisciplinary perspectives in designing culturally grounded arts learning experiences. [CLO 3]	2. Howard Gardner's Theory of Multiple Intelligences 3. Leonard Bernstein's Artful Learning 4. Mihaly Csikszentmihalyi's Flow in artistic performance and Systems model of creativity 5. Ken Robinson on Schools and creativity, and Risk-taking in arts education C. Constructivist and Embodied Learning - Jean Piaget's Theory of Cognitive Development - Lev Vygotsky's Social constructivism D. Experiential and Inquiry-Based Education - John Dewey's Art as experience and Learning through doing - David A. Kolb's Experiential learning cycle, Inquiry-based learning, and Project-based arts integration - Maria Montessori's Prepared environment, Independent exploration, Universal Design for Learning (UDL), and Differentiated arts assessment E. Philippine Frameworks in Arts & Culture Education - Pantayong Pananaw - Sikolohiyang Pilipino	theoretical perspectives guide the teaching approach. Students watch selected talks or performances demonstrating creativity and arts learning (e.g., Ken Robinson lectures or artistic performances illustrating flow). Small groups study assigned Philippine frameworks: - Pantayong Pananaw - Sikolohiyang Pilipino - Kalikhaan - Eight Living Cultures - Cultural Education Plan - DepEd Localization and IPEd Groups present implications for arts and culture education in Philippine classrooms. Students design a mini arts-learning activity that integrates at least one interdisciplinary theory and one Philippine cultural framework. <i>Examples:</i> - Community-based dance exploration - Visual arts project on local cultural symbols - Storytelling and oral traditions	2. Applied Arts Education Design Task (Major Output) Students design a culture-based arts learning activity integrating: - One creativity or learning theory - One Philippine cultural framework - A contextual community element	

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		• Kalikhaan • Eight Living Cultures • NCCA Cultural Education Plan • DepEd IPEd & Localization			
6-8	Describe major artistic forms in music, dance, theater, and visual arts across Philippine, Asian, and selected global contexts. [CLO 2] Analyze basic aesthetic elements and functions of selected artistic works through guided reflective and interpretive tasks. [CLO 1] Propose simple learning connections relevant to basic education contexts. [CLO 3]	III. Survey of Cultural Artistic Forms A. Major Artistic Disciplines Across Cultural Contexts • Music traditions (indigenous, folk, classical, contemporary) • Dance forms (folk, ritual, classical, modern) • Theater traditions (ritual, community theater, contemporary forms) • Visual arts (indigenous crafts, classical forms, contemporary practices) B. Aesthetic Elements and Artistic Functions • Elements and principles in each discipline • Symbolism and meaning • Ritual, social, political, and educational functions of art • Art as cultural identity expression C. Mapping Local Cultural Practices 3 Community rituals, festivals, crafts, oral traditions 4 Local artists and cultural bearers 5 Cultural mapping as an educational tool	Interactive guided discussion (art as cultural mirror, culture-based pedagogy, art as cultural text) Audio-Visual Analysis (short clips of performances). Community Cultural Inventory Task Students list artistic practices observable in their barangay/municipality. Mini Field Documentation (Optional if feasible) Interview a local artist or cultural practitioner (face-to-face or online). Cultural Mapping Simulation • Students use a basic mapping template to categorize: ◦ Tangible heritage ◦ Intangible heritage ◦ Living traditions Workshop: From Culture to Curriculum • Students identify how a local practice can become a lesson entry point.	Diagnostic reflection “How does art reflect who we are as a people?” (1-page reflection) Comparative Matrix: Students differentiate at least 3 artistic traditions using elements, function, and context. Draft Mini Learning Application (1-page lesson concept) Students must: 1. Identify art form 2. Identify cultural context 3. Propose learning objectives 4. Suggest classroom activities Performance Task Cultural Art to Learning Connection Project Students will: • Select one artistic form (music, dance, theater, or visual art) • Analyze its: ◦ Aesthetic elements ◦ Cultural function • Develop a simple, culturally grounded learning application (<i>Grade level specified</i>)	[7] [12] [16] [17] [18] [19] [24] [33] [34] [35] [37] [38]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
				Output Format: 5–7 minute presentation 2–3 page concept paper	
9	MIDTERM EXAMINATION				
10-13	Design introductory arts-integrated lesson plans aligned with curricular standards and learner needs. [CLO 3] Apply culture-based pedagogical strategies in the development and simulation of learning activities. [CLO 3] Integrate locally grounded cultural practices and knowledge systems into arts-based learning designs. [CLO 4]	IV. Arts-Integrated & Culture-Based Pedagogies 1. Art as Cultural Text and Pedagogical Resource - Understanding art within cultural contexts - Art as transmission of values and worldview - Using cultural practices as entry points for learning design - Ethical representation and cultural sensitivity 2. Arts Integration Frameworks - Definitions and rationale of arts integration Models: - Discipline-Based Arts Education (DBAE) - STEAM Integration - Arts as Curriculum vs Arts as Strategy - Parallel, Complementary, and Integrated Models - Backward Design in Arts-Integrated Planning - Constructivist foundations 3. Culture-Based Pedagogy - Culturally Responsive Teaching (CRT) - Funds of Knowledge Framework - Place-Based Education	Lesson Design Workshop: Guided task for drafting arts-integrated activities. Tool Demo Sessions: Using simple digital/documentation tools (Canva, audio recorders, etc.). Cultural Practice Interpretation Workshop	Summative Mini lesson plan / arts-integrated activity aligned with a cultural practice.	[25] [26] [27] [28]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
		7. Indigenous Knowledge Systems in Education 8. Decolonizing Pedagogy in the Philippine Context 9. Ethical cultural representation 4. Designing Contextually Grounded Learning 6. Aligning community practices to curriculum competencies 7. Translating festivals, rituals, oral traditions into lesson objectives 8. Writing culturally grounded performance tasks 5. Digital Tools for Arts & Culture Education - Digital documentation of cultural practices - Video ethnography basics - Digital storytelling tools - Presentation platforms - Ethical use of cultural content online - Archiving and digital preservation basics			
14-17	Identify opportunities for heritage conservation, sustainability, and cross-disciplinary collaboration in arts and culture education contexts. [CLO 5] Analyze local cultural practices and community arts initiatives using educational and socio-cultural lenses. [CLO 5] Design introductory culture-based or	V. Sustainability & Community Engagement in Arts and Culture Education A. Heritage Education Concepts - Tangible vs. intangible cultural heritage - Cultural mapping and safeguarding practices - Heritage-based lesson planning B. Community-Based Arts Programs	Issue Analysis Circles: Students examine local cultural issues and identify opportunities for conservation or collaboration. Students analyze examples of Philippine community arts programs, such as: 6.1 NCCA community cultural projects 6.2 School-based cultural heritage initiatives	Summative Short issue analysis / collaborative concept paper. Students write a short concept paper (1000–1500 words) that includes: - Description of a local cultural issue or practice - Analysis of its educational and cultural significance - Proposed arts-based or culture-based educational initiative	[22] [23] [24] [27] [29] [30] [31]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	arts-integrated activities that contribute to the preservation, appreciation, and transmission of local cultural heritage. [CLO 6] Synthesize course concepts into applied community-responsive design. [CLO 6]	- Community cultural development - Participatory arts practices - Arts as social engagement and cultural advocacy - Partnerships with local artists, culture bearers, and communities C. Cross-Disciplinary Arts Work - Integrating arts with history, language, social studies, and environmental education - Arts as tools for cultural dialogue and social awareness D. Sustainability and Cultural Continuity - Cultural sustainability frameworks - Intergenerational transmission of traditions - Role of schools in sustaining cultural heritage	6.3 Festival-based cultural revitalization Students identify pedagogical implications for arts teaching. Mini-Proposal Drafting Session: Students design a short concept proposal for a project such as: - school heritage documentation project - community dance or music workshop - cultural storytelling program 0. arts-based environmental awareness activity	Potential community collaboration partners	
18	ALTERNATIVE FINAL EXAMINATION (Collaborative Arts-based or culture-based Research Proposal)				

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Bachelor of Education Major in Physical and Health Education

SYLLABUS GUIDE FOR HUMAN BEHAVIOR AND HEALTH (INDIVIDUAL, SOCIAL, AND CULTURAL FACTORS INFLUENCING HEALTH BEHAVIORS)

Course Credits	3 units	Contact Hours	51-54 hours
Prerequisite/s			
Course Description	This course equips pre-service teachers to critically analyze the complex psychosocial and socio-environmental factors that shape student health and well-being. They apply key theoretical frameworks to understand how individual characteristics (such as self-esteem and motivation) and systemic factors (including schools, policy, and culture) intersect with Physical and Health Education. The course covers micro-level concepts, such as motivation, self-perceptions, body image, and behavioral change models. It then expands to macro-level influences, exploring how schools, communities, social groups, and policies create the socio-environmental context for health. The course utilizes interactive lectures, multimedia resources, problem-based learning, and small-group discussions, applying theoretical models to local health issues. Assessments include written assignments connecting theory to real-life examples, community health surveys, quizzes, participation, and a final capstone project focused on designing a program or intervention to address a local socio-behavioral health issue.		

[PO 1] Apply the scientific and theoretical knowledge from Physical and Health Education, exercise and sports sciences, and public health to effectively and continuously adapt pedagogical practices in Physical and Health Education.	[CLO 1] Critically analyze how psychosocial (e.g., motivation, self-esteem) and socio-environmental factors (e.g., policy, culture) intersect to influence learner health and well-being within a Physical and Health Education context.	[1.1.1]
[PO 3] Exhibit mastery of the subject matter and pedagogical content knowledge for effective teaching and learning experiences.		
[PO 1] Apply the scientific and theoretical knowledge from Physical and Health Education, exercise and sports sciences, and public health to effectively and continuously adapt pedagogical practices in Physical and Health Education.	[CLO 2] Apply micro-level theoretical frameworks, such as behavioral change models and self-perception theories, to interpret individual health behaviors and body image issues in school settings.	[3.1.1]

[PO 3] Exhibit mastery of the subject matter and pedagogical content knowledge for effective teaching and learning experiences.		
[PO 1] Apply the scientific and theoretical knowledge from Physical and Health Education, exercise and sports sciences, and public health to effectively and continuously adapt pedagogical practices in Physical and Health Education. [PO 3] Exhibit mastery of the subject matter and pedagogical content knowledge for effective teaching and learning experiences. [PO 5] Critically examine the curriculum, instruction and assessments, and execute actionable insights.	[CLO 3] Evaluate the role of macro-level influences, including school climate, community resources, and public policy, in shaping the health outcomes of diverse learner populations.	[3.2.1]
[PO 4] Manage safe and effective physical activity and health programs responsive to the diverse needs and abilities of the learners, the capacities of the school and the community. [PO 6] Demonstrate digital literacy in teaching, facilitating learning, and in the conduct of assessments.	[CLO 4] Execute an individual health survey to identify and document specific behavioral health issues.	[6.1.1]
[PO 3] Exhibit mastery of the subject matter and pedagogical content knowledge for effective teaching and learning experiences. [PO 5] Critically examine the curriculum, instruction and assessments, and execute actionable insights.	[CLO 5] Synthesize theoretical concepts with real-world observations through written reflections and problem-based learning scenarios.	[1.2.1]
[PO 4] Manage safe and effective physical activity and health programs responsive to the diverse needs and abilities of the learners, the capacities of the school and the community. [PO 6] Demonstrate digital literacy in teaching, facilitating learning, and in the conduct of assessments.	[CLO 6] Develop a comprehensive program or intervention that addresses a specific local socio-behavioral health issue, such as the lack of physical activity among youth, demonstrating an ability to bridge the gap between systemic theory and practical school-based application.	[4.3.1]

Suggested Summative Assessment Tasks and Alignment with Course Outcomes

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 2] Apply micro-level theoretical frameworks, such as behavioral change models and self-perception theories, to interpret individual health behaviors and body image issues in school settings. [CLO 5] Synthesize theoretical concepts with real-world observations through written reflections and problem-based learning scenarios.	Theoretical Reflection Paper (15%)	4.6 Pre-service teachers demonstrate the ability to apply behavioral frameworks while synthesizing those theories with real-life Physical and Health Education examples. 4.7 Accurately defines and explains micro-level concepts such as self-perception, body image, and behavioral change models. 4.8 Demonstrates a clear link between research-based principles and specific classroom or sports scenarios 4.9 Evaluates how individual characteristics like motivation and self-esteem impact learner participation in physical activities. 4.10 The paper must identify at least two theoretical frameworks and apply them to a documented pedagogical challenge in Physical and Health Education.
[CLO 3] Evaluate the role of macro-level influences, including school climate, community resources, and public policy, in shaping the health outcomes of diverse learner populations. [CLO 4] Execute an individual health survey to identify and document specific behavioral health issues.	Case Study: Health Survey Report (20%)	4. This task is the primary evidence for conducting an assessment and evaluating individual and social influences of health behavior experienced by an individual. 5. Identifies specific environmental, or cultural factors that influence an individual's health behavior. 6. Presents organized data from the survey (e.g., availability of facilities, local health trends) with logical interpretations. 7. A written summary that identifies "micro-level" and "macro-level" health determinants.
[CLO 1] Critically analyze how psychosocial (e.g., motivation, self-esteem) and socio-environmental factors (e.g., policy, culture) intersect to influence learner health and well-being within a Physical and Health Education context.	Exams and Quizzes (25%)	Pre-service teachers demonstrate mastery of definitions and the ability to apply theories to novel scenarios. They correctly identify and define core concepts. These verify their foundational ability to critically analyze intersectional factors and recall the specific details of micro/macro-level health theories.

Course Learning Outcomes	Summative Assessment Task	Performance Standard
[CLO 2] Apply micro-level theoretical frameworks, such as behavioral change models and self-perception theories, to interpret individual health behaviors and body image issues in school settings. [CLO 3] Evaluate the role of macro-level influences, including school climate, community resources, and public policy, in shaping the health outcomes of diverse learner populations.		• Demonstrates a comprehensive grasp of the course terminology, from micro-level psychology to macro-level policy. • Correctly identifies the appropriate theoretical model to use when presented with a specific health-behavior case study. • Achievement of a minimum threshold of 75%
[CLO 6] Develop a comprehensive program or intervention that addresses a specific local socio-behavioral health issue, such as the lack of physical activity among youth, demonstrating an ability to bridge the gap between systemic theory and practical school-based application.	Capstone Project (30%)	• This serves as the evidence of designing a health intervention. It requires the integration of all previous CLOs into one final, actionable program. • Proposes a health intervention that is relevant, logically sequenced, and responsive to a specific local health issue. • Selects or develops appropriate teaching/learning resources (including ICT where applicable) to support the intervention goals. • Explicitly designs the program to suit diverse learners' needs, including considerations for gender, interests, and physical abilities.
[CLO 1] Critically analyze how psychosocial (e.g., motivation, self-esteem) and socio-environmental factors (e.g., policy, culture) intersect to influence learner health and well-being within a Physical and Health Education context. [CLO 3] Evaluate the role of macro-level influences, including school climate, community resources, and public policy, in shaping the health outcomes of diverse learner populations. [CLO 5] Synthesize theoretical concepts with real-world observations through written reflections and problem-based learning scenarios.	Participation and Problem-Based Learning Discussions (10%)	6. Pre-service teachers demonstrate deep introspection and can identify subtle psychological cues in a field setting. They contribute to the discussion by posing questions that challenge the group's thinking.

Note: TEIs can add additional matrices to reflect alignment with their institutional outcomes.

Suggested Learning Plan

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
1	Define the intersection of Health and Sport Psychology within the context of Physical and Health Education. Explain the components of the Biopsychosocial (BPS) model and how they interact to influence learner health and athletic performance. Apply the BPS framework to a real-world educational scenario (e.g., a learner refusing to participate in physical education activity). Differentiate between the traditional medical model and the biopsychosocial approach to health and physical activity.	I. Introduction to Psychology for Physical and Health Educators Bridging Health and Sport Psychology in educational settings. The Biopsychosocial model as a framework for teaching	7. Lecture 8. Small Group Discussion 9. Collaborative Brainstorming	10. Comparative infographic of models of health Pre-service teachers create a visual comparison contrasting the traditional medical model with the BPS approach 2. Concept map Using a specific learner profile (e.g., a student-athlete with performance anxiety), pre-service teachers map the components with the BPS model 7. Case study analysis Pre-service teachers are presented with a scenario, such as a learner refusing to participate in PE, and propose a plan of action based on the BPS model	[1] [2] [3]
2	Contrast Trait, Situational, and Interactional viewpoints of personality. Evaluate how the Interactional Perspective allows for more effective classroom management and coaching compared to Trait-only views. Identify common health inequalities and social barriers (minority status, gender,	II. Personality and Individual Differences A. Trait vs. Interactional Perspectives: Understanding learner and athlete “types.” B. Health Inequalities: Navigating minority status, gender, and cultural competence in the gym and classroom	17. Lecture 18. Workshop 19. Small Group Activity	• Comparative Matrix Pre-service teachers complete a table contrasting trait, situational, and interactional viewpoints. They must provide a specific health behavior or PE-related example for each. • Classroom management simulation In a written reflection, pre-service teachers are given a scenario of a	[4] [5]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	disability) that impact participation in PE. Propose strategies for "Cultural Competence" to create an inclusive environment for diverse learner populations.			"difficult" learner. They must describe how a teacher using only a trait-view would react versus a teacher using an interactional perspective. • Inclusive PE "action plan" Pre-service teachers select a specific social barrier and propose three concrete cultural competence strategies to mitigate that barrier in a school setting.	
3	Explain the continuum of motivation in Self-Determination Theory (SDT), from amotivation to intrinsic motivation. Distinguish between Task (Mastery) and Ego (Outcome) orientations within Achievement Goal Theory (AGT). Analyze how the three basic psychological needs (Autonomy, Competence, Relatedness) influence long-term health behavior adherence. Design a motivational strategy for a specific physical activity setting that promotes a "Task-Involving" climate.	III. Motivation and Achievement A. Self-Determination Theory and Achievement Goal Theory B. Applying motivation to sports participation and long-term health behaviors	• Lecture • Simulation • Brainstorming	• Motivational analysis profile Pre-service teachers are provided with three short "learner profiles" and they must categorize each profile along the SDT continuum and identify if the learner exhibits a task or ego orientation • Motivational strategy design Pre-service teachers select a specific physical activity setting and design a "task-involving" climate plan, addressing the three basic psychological needs to encourage adherence.	[4] [5] [6] [7]
4	Compare and contrast the focus of Socio-cognitive (individual), Stage (temporal), and Social Ecological (environmental) models. Identify a participant's current stage of change using the Transtheoretical Model (TTM).	IV. Behavior Change Models A. Socio-cognitive, Stage models, and Social Ecological models B. Moving from individual choice to environmental influence	• Workshop • Small Group Activity	• Diagnostic interview Pre-service teachers conduct a brief simulated interview with a "student/pupil" who wants to start a fitness program but is struggling to stay consistent. • Multi-level barrier audit: socio ecological analysis	[8] [9] [10]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	Apply the Social Ecological Model to identify multi-level barriers to physical activity in a school or community setting. Evaluate the role of "Self-Efficacy" as a central mediator in the behavior change process across different models.			Pre-service teachers select a local school or community setting and perform an audit of physical activity and health behavior barriers across the four levels of the social ecological model.	
5	Differentiate between a Mastery (Task-Involving) climate and a Performance (Ego-Involving) climate. Identify and apply the dimensions of the TARGET model to manipulate the motivational climate of a PE lesson. Analyze how different teaching styles (from Command to Discovery) impact learner autonomy and competence.	V. The Motivational Climate A. Teaching styles in Physical Education B. Creating a "Task-Oriented" vs. "Ego-Oriented" environment	- Lecture - Small Group Activity - Video Case Study Analysis	"TARGET" lesson plan audit Pre-service teachers are given a transcript or a video clip of a traditional, "ego-involving" PE lesson. Pre-service teachers must use the TARGET model to rewrite the lesson's structure to create a mastery-involving climate. "Spectrum of Style" analysis chart Pre-service teachers select a specific skill and describe how it would be taught using three different points on the spectrum of teaching styles.	[5]
6	Identify common barriers to exercise adherence (e.g., time, lack of social support, perceived incompetence). Design specific strategies for long-term behavior maintenance, including goal setting, self-monitoring, and relapse prevention. Explain the factors influencing adherence to medical advice and health recommendations (e.g.,	VI. Promoting Protective Behaviors A. Exercise adherence B. Strategies for enhancing long-term behavior maintenance and adherence to medical advice and health recommendations	- Lecture - Role-Play	1.6 Case study Pre-service teachers are given a detailed profile of a "non-adherent participant" and they must identify at least three specific barriers, analyze the "client-provider" communication breakdown presented in the case, and identify the participant's current stage of change, selecting two adherence strategies that specifically match that stage.	[4]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	patient-provider communication, treatment complexity). Apply the "matching hypothesis" to pair specific adherence strategies with an individual's stage of change.				
7	Compare the prevalence and motivations for substance use (tobacco, alcohol, performance-enhancing drugs) between athletic and general populations. Identify the psychological "red flags" for exercise addiction and eating disorders in a physical activity setting. Explain the "vulnerability factors" that lead athletes toward addictive behaviors like compulsive gambling. Evaluate the teacher/coach's role in prevention, identification, and referral (knowing when to step in vs. when to refer to a professional).	VII. Health-Risk and Addictive Behaviors A. Substance abuse (tobacco, alcohol, drugs) in athletic vs. general populations B. Eating disorders, exercise addiction, and gambling in sports.	- Interactive Lecture Discussion - Role-Play	Athlete vs general population comparative fact sheet - Pre-service teachers create a two-page "professional fact sheet" designed for a school coaching staff, comparing prevalence rates and motivations for using tobacco, alcohol and PEDs between athletes and the general learner population. - Include a section explaining why athletes are uniquely susceptible to "hidden" addictions like compulsive gambling. "Red flag" protocol and referral simulation - Pre-service teachers are presented with a series of "observation snippets" and they must complete a checklist of psychological and behavioral indicators for exercise addiction or eating disorders. - They create a flowchart that distinguishes between the teacher's	[4] [11] [12] [13]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
				role and the professional's role.	
8	Differentiate between stress (the process), arousal (the physiological state), and anxiety (the emotional response). Explain the "Stress-Illness Link" via the impact of cortisol and the sympathetic nervous system on the immune response. Analyze the Inverted-U Hypothesis to determine the "Optimal Level of Arousal" for various physical tasks. Evaluate the difference between Cognitive Anxiety (thoughts) and Somatic Anxiety (physical symptoms) and their respective impacts on performance.	VIII. Stress Theory and Arousal 6. Defining stress, arousal, and anxiety 7. The stress-illness link and the "inverted-U" performance hypothesis	5. Lecture 6. Small Group Activity 7. Visualization Exercise	• "Optimal Performance" analysis chart Pre-service teachers are provided with three different sports/activity scenarios: a high-precision task, a high-intensity task, and a complex team sport. For each scenario, pre-service teachers must identify the optimal arousal level using the inverted U-hypothesis, define how cognitive anxiety and somatic anxiety would specifically manifest and interfere with performance in that task, and briefly differentiate between the stress and the anxiety within these scenarios. • "Stress-Illness Link" physiological model Pre-service teachers create a flowchart or annotated diagram that traces a student-athlete's journey from a "chronic stressor" to "illness."	[4] [13]
9	<i>Midterm Exams</i>				
10	Demonstrate specific arousal regulation techniques for both anxiety reduction (calming) and "pepping up" (energizing). Differentiate between Problem-Focused and Emotion-Focused coping strategies and determine when each is most effective.	IX. Stress Management and Coping A. Arousal regulation and coping mechanisms B. Third-wave therapies: integrating mindfulness in health and sport	1. Lecture 2. Small Group Activity 3. Mindful Movement Activity	Coping and Regulation strategy matrix 1. Pre-service teachers are presented with two distinct athlete scenarios, an athlete facing a controllable stressor and one facing an uncontrollable stressor. Pre-service teachers identify which scenario requires	[4] [14]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	Explain the principles of "Third-Wave" therapies, specifically how Mindfulness-Based Stress Reduction (MBSR) differs from traditional relaxation. Integrate a brief mindfulness or arousal regulation drill into a standard physical activity lesson plan.			problem-focused coping and which requires emotion-focused coping. Prescribe one "calming" technique and one "energizing" technique for each. 2. Write a short paragraph explaining how a mindfulness approach to these stressors differ from a traditional relaxation approach.	
11	Analyze the triggers of "State Anxiety" specifically within the PE environment (e.g., peer evaluation, public failure). Define the five core competencies of Social and Emotional Learning (SEL) as they apply to physical activity. Design instructional strategies that facilitate "Pro-social Behavior" (e.g., cooperation, empathy, and fair play) among learners. Evaluate the teacher's role in creating a "Psychologically Safe" environment where learners feel safe to take physical and social risks.	X. Psychological Safety in Physical Education A. Experiencing state anxiety during PE lessons B. Social and emotional learning (SEL) and facilitating pro-social behavior	- Lecture - Individual and Group Activity	Psychological safety environment audit Pre-service teachers are provided with a video or written scenario of a "high-anxiety" PE class, and they must conduct a professional audit of this environment that produces a report that identifies state anxiety triggers, maps SEL competencies, and evaluates teacher agency. Pro-Social Strategy Design Pre-service teachers select a traditionally competitive sport and redesign the rules and instructional delivery to prioritize pro-social behavior and social emotional learning.	[4] [5]
12	Differentiate between the Linear, Cyclical, and Pendular perspectives of group development (e.g., Tuckman's Stages).	XI. Group Dynamics A. Team cohesion, group development, and the teacher/coach's role B. The balance between competition and cooperation in the	i. Lecture j. Class Discussion k. Small Group Activity	Team Cohesion analysis report Pre-service teachers are provided with a case study of a "Dream Team" or a group of highly skilled student-athletes who are	[4] [5]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	Analyze the relationship between Task Cohesion and Social Cohesion and their respective impacts on performance and satisfaction. Identify the "Steiner's Model" of actual productivity to explain why some talented teams underperform (Social Loafing). Design instructional strategies that balance competition and cooperation to maximize learner engagement and pro-social learning.	classroom and the sporting environment		currently underperforming and experiencing internal conflict. Pre-service teachers must write an analytical report that identifies the developmental stage of the group, diagnose the cohesion gap, and applies Steiner's model, specifically identifying signs of social loafing.	
13	Explain the Multidimensional Model of Sport Leadership (MML) and the importance of "congruence" between required, preferred, and actual leader behaviors. Identify the specific leadership behaviors that promote inclusion for learners with diverse physical and cognitive abilities. Apply the TREE model (Teaching, Reward, Environment, Equipment) to modify traditional sports for full inclusion. Critique current leadership styles in physical education through the lens of Cultural Competence and Universal Design for Learning (UDL).	XII. Leadership and Inclusion A. Leadership models (multidimensional model of sport leadership) B. Creating inclusive environments for diverse physical abilities	- Lecture - Small Group Activity	1. "Congruence" leadership audit Pre-service teachers are provided with a case study of a PE teacher whose "actual behavior" conflicts with the "preferred behavior" of a modern, diverse class and the "required behavior" of an inclusive school policy. Pre-service teachers must write a critique that analyzes the MML gap, evaluates cultural competence and UDL, and proposes inclusive behaviors. The "TREE" inclusion design project Pre-service teachers select a traditional, high-barrier sport and use the TREE model to redesign it for a hypothetical class that includes learners with limited mobility and learners with neurodivergent needs.	[4]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
14	Differentiate between the Biomechanical (medical) model of pain and the Psychobiological (Gate Control) model of pain. Analyze the typical emotional and behavioral stages of reaction to athletic injury (e.g., Grief Response vs. Cognitive Appraisal models). Identify the psychological predictors of injury, specifically the role of life stress and coping resources. Propose psychological interventions (e.g., goal setting, imagery, social support) to enhance the rehabilitation process.	XIII. The Psychology of Pain and Injury A. Biological and psychobiological models of pain B. Psychological reactions to athletic injuries and rehabilitation	5.1 Lecture 5.2 Small Group Activity	A. Injury vulnerability and perception brief Pre-service teachers are provided with a profile of a student-athlete undergoing significant "life stress" who subsequently suffers a chronic knee injury. Pre-service teachers must write a professional brief that covers the prediction phase and perception phase. • Holistic rehab intervention design Pre-service teachers follow the same student-athlete through their recovery. The athlete is currently exhibiting "catastrophizing" thoughts and social withdrawal. Pre-service teachers must design a 4-week psychological rehabilitation plan that includes reaction analysis, targeted interventions (goal setting, imagery, social support).	[4]
15	Define Health-Related Quality of Life (HRQoL) and its multidimensional components (physical, emotional, social, and cognitive). Explain the "Family Systems" approach to illness and the psychological impact of caregiving (e.g., caregiver burden and burnout). Analyze the different models of patient-provider communication	XIV. The impact of illness and quality of life A. Quality of life and family caregiver dynamics B. Medical consultations and patient-provider communication	5. Lecture 6. Small Group Activity	• HRQoL and family systems case audit Pre-service teachers are provided with a narrative of a family managing a chronic health condition. Pre-service teachers must write a biopsychosocial impact report that covers HRQoL mapping, family systems analysis, and caregiver burden. 4. Consultation makeover simulation	[15] [16] [17] [18] [19] [20]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	(e.g., Doctor-centered vs. Patient-centered). Identify strategies to improve the "Medical Consultation" process, focusing on empathy, health literacy, and shared decision-making.			Pre-service teachers watch two contrasting video snippets (or read two transcripts) of a medical consultation: one that is doctor-centered and one that is patient-centered. Pre-service teachers must critique the model, redesign for inclusion, and draft a consultation checklist.	
16	Differentiate between the four dimensions of body image: Perceptual (how we see), Affective (how we feel), Cognitive (how we think), and Behavioral (what we do). Analyze the "Sociocultural Model" of body image, specifically the role of media and the "Tripartite Influence Model." Evaluate the impact of the "Athletic Ideal" on both athletes (e.g., muscle dysmorphia) and non-athletes (e.g., social physique anxiety). ILO4. Examine the relationship between body image and reproductive health, focusing on how restrictive behaviors and "Relative Energy Deficiency in Sport" (RED-S) can impact hormonal balance, menstrual health, and long-term fertility. ILO5. Develop "Body-Positive" instructional strategies for the PE classroom that decouple physical	XV. Body Image and Health • Dimensions of Body Image: Differentiating between perceptual, affective, cognitive, and behavioral dimensions of body image. • Sociocultural Influences: Analyzing the "Tripartite Influence Model" and the impact of the "Athletic Ideal" on social physique anxiety and muscle dysmorphia. • Reproductive & Physiological Health: Evaluating the link between body dissatisfaction and Relative Energy Deficiency in Sport (RED-S), specifically how restrictive behaviors disrupt hormonal balance and menstrual health. • Body-Positive Pedagogy: Developing PE strategies that prioritize functional	1. Lecture 2. Small Group Activity	• Body image audit Pre-service teachers are provided with a collection of media artifacts and must write a 1000-word analysis that includes the four dimensions of body image, tripartite model, and the athlete vs non-athlete impact. • Health beyond aesthetics intervention Pre-service teachers design a "body-positive" curriculum unit for a Grade 9 or 10 PE class. The project must include the RED-S fact sheet, <i>reframing</i> strategies, and language guide.	[4] [13] [21] [22] [23]

Week No.	Instructional Learning Outcomes	Course Content	Teaching and Learning Activities	Assessment Tasks	Teaching and Learning Resources
	activity from weight loss or aesthetic outcomes.	movement and internal health over aesthetic outcomes or weight loss.			
17	Distinguish between overtraining (physical state), staleness (performance drop), and burnout (psychological withdrawal). Identify the psychological symptoms of burnout in both athletes and health professionals (e.g., emotional exhaustion, reduced sense of accomplishment). Analyze the theories of moral development and how "bracketed morality" allows for aggression in sports that would be unacceptable in society. Design a "Character Development" protocol for a physical education or health setting that fosters sportsmanship and prosocial behavior.	XVI. Burnout, Overtraining, and Character A. The psychology of "staleness" and exhaustion in athletes and health professionals B. Developing character, sportsmanship, and managing aggression	- Lecture - Small Group Activity	2. Burnout and staleness diagnostic case study Pre-service teachers are provided with the profile of a student-athlete who has high training volumes, declining grades, and a sudden lack of interest in their sport. Pre-service teachers must write a "consultation report" that categorizes the state of the athlete, symptoms analysis, and professional comparison. 7. Moral blueprint and character protocol Pre-service teachers must analyze a video of a high-stakes "aggressive incident" in sport. They must then design a protocol to prevent this behavior in a school setting.	[4]
19	<i>Final Exams</i>				

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