



Republic of the Philippines  
**BATANGAS STATE UNIVERSITY**  
**ARASOF-Nasugbu**  
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**CURRICULUM**  
**BACHELOR OF SECONDARY EDUCATION**  
**MAJOR IN MATHEMATICS**

Academic Year 2018-2019

Reference CMOs: CMO No. 20, s. 2013, CMO No. 75, s. 2017 and CMO No. 4, s. 2018

**University Vision**

A premier national university that develops leaders in the global knowledge economy

**University Mission**

A University committed to producing leaders by providing a 21st century learning environment through innovations in education, multidisciplinary research, and community and industry partnerships in order to nurture the spirit of nationhood, propel the national economy, and engage the world for sustainable development

**University Core Values**

**Patriotism.** This value extends from promoting love of country to taking pride in being a Filipino. The University advocates a strong sense of commitment to national ideals through its active promotion of the Philippine culture and heritage, as well as concern for the environment and the nation's natural biodiversity, all of which lead to the creation of a pool of professionals who are instrumental for nation building.

**Integrity.** This pertains to the University's steadfast adherence to morally-sound principles and ideals in the pursuit of institutional goals and objectives. It covers the values of accountability, honesty righteousness, incorruptibility, and decency in the governance and implementation of academic, administrative, financial policies.

**Excellence.** This represents the drive of the University to pursue greatness. It includes the cultivation of a culture of excellence in the hearts and minds of the stakeholders, and the continuous improvement in the systems by which the University operates on. This value pushes the institution to go beyond the standard levels of performance, and be in a position of leadership that would inspire the people and other institutions to serve the country in the highest degree.

**Service.** This refers to the genuine desire of the University to respond to the growing needs of the community. It encompasses the selfless performance of the University's mandates, and its duty to constantly meet the challenges of development in the country in the spirit of uplifting the lives of the Filipino people.

**Resilience.** This refers to the ability to conquer the different challenges, hardships and tests of time. This value encompasses the commitment of the University to support the government in pursuing sustainable development, and foster disaster risk reduction and management by dedicating its efforts towards strengthening readiness and capacity of the community and its people.

**Faith.** The University's initiatives and activities are guided by a strong faith in a Supreme Being. These are anchored on high regard and respect for the beliefs and orientation of each member of the academic community for a productive and meaningful co-existence.

**Philosophy or Rationale of the Program**

The Bachelor of Secondary Education (BSEd) major in Mathematics is an undergraduate

teacher education degree program designed to equip learners with adequate and relevant competencies to teach mathematics at the secondary level. It aims to develop highly motivated and competent teachers specializing in the content and pedagogy for mathematics in the secondary education. After successful completion of all academic requirements of the degree/program, graduates of BSEd major in Mathematics should be able to practice the teaching profession at the Secondary Level.

### **Program Educational Objectives (PEO)**

The BSEd program aims to produce secondary teachers who have the ability to:

**PEO1. Specialist.** Demonstrate comprehensive and up-to-date knowledge in a specific field of specialization in the physical education curriculum by engaging in scholarly and research activities and by maximizing opportunities for lifelong learning;

**PEO2. Innovator.** Provide meaningful learning experiences to secondary students by using emerging educational technologies for quality and effective teaching and by creating an environment that encourages positive social interaction, active engagement and self-motivation;

**PEO3: Proficient.** Demonstrate competence in teaching and testing through the design, adoption and utilization of teaching methods, instructional materials, and assessment tools that are appropriate to the cognitive, affective and psychomotor development of learners;

**PEO4: Professional and Lifelong Learner.** Observe the professional code of ethics for teachers and internalize the importance of continuous professional development, as well as the need to work cooperatively and harmoniously with all members of the academic community; and

**PEO5: Extensionist.** Establish sustainable partnerships and linkages with the professional community and provide assistance to the underserved, depressed, illiterate and less skilled members of society through extension activities and community service.

### **Career Opportunities**

After successful completion of all academic requirements of the degree/program, graduates of BSEd major in Mathematics should be able to practice the teaching profession in the secondary level.

### **Allied Programs**

The BSEd degree program draws from various allied disciplines like social sciences, science, math, technology, languages, and humanities to ensure that the graduates have a multi-disciplinary preparation in content and pedagogy.

### **Institutional Graduate Attributes (IGAs)**

The IGAs are the qualities, skills and knowledge that the BatStateU community agrees its students should develop during the duration of their studies in Batangas State University. These graduate attributes outline the key competencies that will be developed by students.

**IGA1: Knowledge Competence.** Demonstrate a mastery of the fundamental knowledge and skills required for functioning effectively as a professional in the discipline, and an ability to integrate and apply them effectively to practice in the workplace.

**IGA2: Creativity and Innovation.** Experiment with new approaches, challenge existing knowledge boundaries and design novel solutions to solve problems.

**IGA3: Critical and Systems Thinking.** Identify, define, and deal with complex problems pertinent to the future professional practice or daily life through logical, analytical and critical thinking.

**IGA4: Communication.** Communicate effectively (both orally and in writing) with a wide range of audiences, across a range of professional and personal contexts, in English and Pilipino.

**IGA5: Lifelong Learning.** Identify own learning needs for professional or personal development; demonstrate an eagerness to take up opportunities for learning new things as well as the ability to learn effectively on their own.

**IGA6: Leadership, Teamwork, and Interpersonal Skills.** Function effectively both as a leader and as a member of a team; motivate and lead a team to work towards goal; work collaboratively with other team members; as well as connect and interact socially and effectively with diverse culture.

**IGA7: Global Outlook.** Demonstrate an awareness and understanding of global issues and willingness to work, interact effectively and show sensitivity to cultural diversity.

**IGA8: Social and National Responsibility.** Demonstrate an awareness of their social and national responsibility; engage in activities that contribute to the betterment of the society; and behave ethically and responsibly in social, professional and work environments.

Institutional Graduates Attributes will be assessed through the following tools: Major Requirements such as: Midterm Examination, Final Examination, Semestral Project, and Additional Requirements such as Chapter Tests, Assignments, Projects, Demonstration Teaching, Learning Plan Preparation Reports, Term Papers, Case Studies, Essays, Recitation, Attendance, Quizzes, Seatworks, and other assessment methods applicable to the course.

### **Sustainable Development Goals (SDGs)**

**SDG1: Envisioning.** Establish a link between long-term goals and immediate actions, and motivate people to take action by harnessing their deep aspirations.

**SDG2: Critical Thinking and Reflection.** Examine economic, environmental, social and cultural structures in the context of sustainable development, and challenges people to examine and question the underlying assumptions that influence their world views by having them reflect on unsustainable practices.

**SDG3: Systemic Thinking.** Recognize that the whole is more than the sum of its parts, and it is a better way to understand and manage complex situations.

**SDG4: Building Partnerships.** Promote dialogue and negotiation, learning to work together, so as to strengthen ownership of and commitment to sustainable action through education and learning.

**SDG5: Participation in Decision Making.** Empower oneself and others through involvement in joint analysis, planning and control of local decisions.

### **Student Outcomes**

The graduates of the BSEd major in Mathematics program have the ability to:

**SO1 Mathematical Proficiency.** Exhibit competence in mathematical concepts and procedures;

**SO2 Knowledge of Curriculum.** Exhibit proficiency in relating mathematics to other curricular areas;

**SO3 Pedagogical Content Knowledge.** Manifest meaningful and comprehensive pedagogical content knowledge (pck) of mathematics;

**SO4 Assessment and Reporting.** Demonstrate competence in designing, construction and utilizing different forms of assessment in mathematics;

**SO5 Critical Thinking and Problem Solving.** Demonstrate proficiency in problem-solving by solving and creating routine and non-routine problems with different levels of complexity;

**SO6 Technological Pedagogical Knowledge.** Use effectively appropriate approaches, methods, and techniques in teaching mathematics including technological tools; and

**SO7 Lifelong Learning and Values.** Appreciate mathematics as an opportunity for creative work, moments of enlightenment, discovery and gaining insights of the world.

Student Outcomes will be assessed through the following tools: Major Requirements such as; Midterm Examination, Final Examination, Semestral Project, and Additional Requirements such as Chapter Tests, Assignments, Projects, Demonstration Teaching, Learning Plan Preparation, Reports, Term Papers, Case Studies, Essays, Recitation, Attendance, Quizzes, Seatworks, and other assessment methods applicable to the course.

### Teaching, Learning, and Assessment Strategies

For teaching and learning strategies, the following are suggested for the program: combination of alternative/flexible mode of learning and the face-to-face learning modality.

To facilitate the alternative/flexible mode of learning, Google Meet, and/or phone calls will be considered for synchronous discussion of the lessons while Google Classroom, Messenger, and/or text messaging will be used for asynchronous learning. Using multiple type of instructional materials (online materials by providing the students the links, online discussion groups, home-grown teaching resources and test prep materials via google classroom, google meet, and or phone calls) will be considered as well in this time of pandemic.

In the case of face-to-face learning modality, differentiated instruction, and mix up group work styles, lecture, discussion, interactive learning, think-pair-share, collaborative approach, panel discussion, technology strategy will also be utilized to achieve the learning outcomes.

Assessment strategies to be utilized are as follows: a.) Major Requirements such as Midterm Examination, Final Examination, and Semestral Project, and b.) Additional Requirements such as Chapter Tests, Assignments, Projects, Demonstration Teaching, Learning Plan Preparation, Reports, Term Papers, Case Studies, Essays, Recitation, Attendance, Quizzes, Seatworks, and other assessment methods applicable to the course.

### Curriculum Structure

FIRST YEAR							
FIRST SEMESTER							
Code	Course Title	Units	Lec	Lab	Pre-requisite (s)	Co-requisite (s)	Category
NSTP 111	National Service Training Program 1	3	3	-	-	-	Mandated
PE 101	Physical Fitness, Gymnastics and Aerobics	2	2	-	-	-	Mandated
GEd 101	Understanding the Self	3	3	-	-	-	General Education
GEd 102	Mathematics in the Modern World	3	3	-	-	-	General Education
GEd 103	Life and Works of Rizal	3	3	-	-	-	General Education
Fili 101	Kontekstwalisadong Komunikasyon sa Filipino	3	3	-	-	-	General Education
Ed 101	The Child and Adolescent Learners and Learning Principles	3	3	-	-	-	Professional Education
MEd 111	History of Mathematics	3	3	-	-	-	Specialization
MEd	College and Advanced	3	3	-	-	-	Mandated

112	Algebra						
<b>TOTAL</b>		<b>26</b>	<b>26</b>	<b>-</b>			

<b>FIRST YEAR</b>							
<b>SECOND SEMESTER</b>							
<b>Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Lec</b>	<b>Lab</b>	<b>Pre-requisite(s)</b>	<b>Co-requisite(s)</b>	<b>Category</b>
NSTP 121	National Service Training Program 2	3	3	-	NSTP 111	-	Mandated
PE 102	Rhythmic Activities	2	2	-	PE 101	-	Mandated
GEEd 104	The Contemporary World	3	3	-	-	-	General Education
GEEd 105	Readings in the Philippine History	3	3	-	-	-	General Education
GEEd 106	Purposive Communication	3	3	-	-	-	General Education
Litr 101	Sosyedad at Literatura/Panitikang Panlipunan	3	3	-	-	-	General Education
Ed 102	The Teaching Profession	3	3	-	-	-	Professional Education
MEd 121	Trigonometry	3	3	-	MEd 112	-	Specialization
MEd 122	Plane & Solid Geometry	3	3	-	MEd 112	-	Specialization
MEd 123	Logic & Set Theory	3	3	-	-	-	Specialization
<b>TOTAL</b>		<b>29</b>	<b>29</b>	<b>-</b>			

<b>SECOND YEAR</b>							
<b>FIRST SEMESTER</b>							
<b>Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Lec</b>	<b>Lab</b>	<b>Pre-requisite(s)</b>	<b>Co-requisite(s)</b>	<b>Category</b>
PE 103	Individual and Dual Sports	2	2	-	PE 101	-	Mandated
GEEd 107	Ethics	3	3	-	-	-	General Education
GEEd 108	Art Appreciation	3	3	-	-	-	General Education
Ed 103	The Teacher and the Community, School Culture and Organizational Leadership	3	3	-	Ed 102	-	Professional Education
Ed 104	Assessment in Learning 1	3	3	-	-	-	Professional Education
Ed 105	Facilitating Learner-Centered Teaching	3	3	-	Ed 101	-	Professional Education
MEd 211	Modern Geometry	3	3	-	MEd 122,123	-	Specialization
MEd 212	Calculus I with Analytical Geometry	4	4	-	MEd 112,121,122	-	Specialization
MEd 213	Elementary Statistics & Probability	3	3	-	-	-	Specialization

<b>TOTAL</b>	<b>27</b>	<b>27</b>	<b>-</b>			
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<b>SECOND YEAR</b>							
<b>SECOND SEMESTER</b>							
<b>Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Lec</b>	<b>Lab</b>	<b>Pre-Requisite(s)</b>	<b>Co-requisite(s)</b>	<b>Category</b>
PE 104	Team Sports	2	2	-	PE 101	-	Mandated
GEEd 109	Science, Technology and the Society	3	3	-	-	-	General Education
Fili 102	Filipino sa Iba't Ibang Disiplina	3	3	-	-	-	General Education
Ed 106	Foundation on Special and Inclusive Education	3	3	-	-	-	Professional Education
Ed 107	Technology for Teaching and Learning 1	3	3	-	-	-	Professional Education
Ed 108	The Teacher and the School Curriculum	3	3	-	-	-	Professional Education
MEd 221	Calculus 2	4	4	-	MEd 212	-	Specialization
MEd 222	Linear Algebra	3	3	-	MEd 123	-	Specialization
<b>TOTAL</b>		<b>24</b>	<b>24</b>	<b>-</b>			

<b>THIRD YEAR</b>							
<b>FIRST SEMESTER</b>							
<b>Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Lec</b>	<b>Lab</b>	<b>Pre-requisite(s)</b>	<b>Co-requisite(s)</b>	<b>Category</b>
Fili 103	Retorika – Masining na Pagpapahayag	3	3	-	Fili 101,102	-	General Education
Ed 109	Assessment in Learning 2	3	3	-	Ed 104	-	Professional Education
Ed 110	Building and Enhancing New Literacies Across the Curriculum	3	3	-	-	-	Professional Education
MEd 311	Calculus 3	3	3	-	MEd 221	-	Specialization
MEd 312	Advanced Statistics	3	3	-	MEd 213	-	Specialization
MEd 313	Principles & Strategies in Teaching Mathematics	3	3	-	Ed 105	-	Specialization
MEd 314	Problem Solving, Mathematical Investigation & Modeling	3	3	-	MEd 112,122,123	-	Specialization
MEd 315	Research in Mathematics 1	4	4	-		MEd 312*	Specialization
<b>TOTAL</b>		<b>25</b>	<b>25</b>	<b>-</b>			

<b>THIRD YEAR</b>							
<b>SECOND SEMESTER</b>							
<b>Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Lec</b>	<b>Lab</b>	<b>Pre-requisite(s)</b>	<b>Co-requisite(s)</b>	<b>Category</b>

Litr 102	ASEAN Literature	3	3	-	-	-	General Education
MEd 321	Technology Application in Mathematics Teaching	3	3	-	Ed 107	-	Specialization
MEd 322	Assessment & Evaluation in Mathematics	3	3	-	MEd 312, Ed 109	-	Specialization
MEd 323	Mathematics of Investment	3	3	-	MEd 112	-	Specialization
MEd 324	Abstract Algebra	3	3	-	MEd 123	-	Specialization
MEd 325	Number Theory	3	3	-	MEd 112,123	-	Specialization
MEd 326	Differential Equation	3	3	-	MEd 311	-	Specialization
MEd 327	Research in Mathematics 2	1	1	-	MEd 315	-	Institutional Prerogative
<b>TOTAL</b>		<b>22</b>	<b>22</b>	<b>-</b>			

<b>FOURTH YEAR</b>							
<b>FIRST SEMESTER</b>							
<b>Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Lec</b>	<b>Lab</b>	<b>Pre-requisite(s)</b>	<b>Co-requisite(s)</b>	<b>Category</b>
Ed 111	Field Study 1	3	3	-	Ed 101 to 110 All MEd Courses		Professional Education
Ed 112	Field Study 2	3	3	-	Ed 101 to 110 All MEd Courses		Professional Education
Ed 113	Management of Students' Behavior and Wellness	3	3	-	-		Institutional Prerogative
Ed 114	Special Topics in Education	3	3	-	-		Institutional Prerogative
<b>TOTAL</b>		<b>12</b>	<b>12</b>	<b>-</b>			

<b>FOURTH YEAR</b>							
<b>SECOND SEMESTER</b>							
<b>Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Lec</b>	<b>Lab</b>	<b>Pre-requisite</b>	<b>Co-requisite(s)</b>	<b>Category</b>
Ed 115	Teaching Internship	6	6	-	Ed 111, 112		Professional Education
Ed 116	Comprehensive Examination	3	3	-	All Academic Courses		Institutional Prerogative
<b>TOTAL</b>		<b>9</b>	<b>9</b>	<b>-</b>			

\*Corequisite course

### Curriculum Mapping

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Units</b>	<b>SO1</b>	<b>SO2</b>	<b>SO3</b>	<b>SO4</b>	<b>SO5</b>	<b>SO6</b>	<b>SO7</b>
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<b>A. General Education Courses</b>									
Fili 101	Kontekstwalisadong Komunikasyon sa Filipino	3			I				
Fili 102	Filipino sa Iba't Ibang Disiplina	3			I				
Fili 103	Retorika – Masining na Pagpapahayag	3			I				
GEd 101	Understanding the Self	3			I				
GEd 102	Mathematics in the Modern World	3			I				
GEd 103	Life and Works of Rizal	3			I				
GEd 104	The Contemporary World	3			I				
GEd 105	Readings in the Philippine History	3			I				
GEd 106	Purposive Communication	3			I				
GEd 107	Ethics	3			I				
GEd 108	Art Appreciation	3			I				
GEd 109	Science, Technology and the Society	3			I				
Litr 101	Sosyedad at Literatura/Panitikang Panlipunan	3			I				
Litr 102	ASEAN Literature	3			I				
<b>B. Professional Education Courses</b>									
<i>Foundation/Theories and Concepts</i>									
Ed 101	The Child and Adolescent Learners and Learning Principles	3				I	I		I
Ed 102	The Teaching Profession	3				I	I		I
Ed 103	The Teacher and the Community, School Culture and Organizational Leadership	3				I	I		I
Ed 106	Foundation of Special and Inclusive Education	3				I	I		I
<i>Pedagogical Content Knowledge</i>									
Ed 107	Technology for Teaching and Learning 1	3				I	I		I
Ed 108	The Teacher and the School Curriculum	3				R	R		R
Ed 104	Assessment in Learning 1	3				I	I		I
Ed 105	Facilitating Learner-Centered Teaching	3				R	R		R
Ed 109	Assessment in Learning 2	3				R	R		R
Ed 110	Building and Enhancing New Literacies Across the Curriculum	3				R	R		R
<i>Experiential Learning</i>									
Ed 111	Field Study 1	3	D	D	D	D	D	D	D
Ed 112	Field Study 2	3	D	D	D	D	D	D	D
Ed 115	Teaching Internship	6	D	D	D	D	D	D	D
<b>C. Major/Specialization Courses</b>									
MEd 112	College and Advanced Algebra	3	I	I				I	I
MEd 211	Modern Geometry	3	I	I				I	I
MEd 212	Calculus I with Analytical	4	I	I				I	I



	Geometry								
MEd 213	Elementary Statistics & Probability	3	I	I			I	I	R
MEd 221	Calculus 2	4	R	R			R	R	R
MEd 222	Linear Algebra	3	R	I			R	I	I
MEd 311	Calculus 3	3	R	R			D	R	D
MEd 312	Advanced Statistics	3	D	R			D	R	D
MEd 313	Principles & Strategies in Teaching Mathematics	3	R	D	D	R	D	R	D
MEd 314	Problem Solving, Mathematical Investigation & Modeling	3	D	R	R		D	R	D
MEd 315	Research in Mathematics 1	4	I	R	R	R	R	R	R
MEd 321	Technology Application in Mathematics Teaching	3	R	D	R	R	D	D	D
MEd 322	Assessment & Evaluation in Mathematics	3	R	D	R	D	D	R	D
MEd 323	Mathematics of Investment	3	I	R			R	R	D
MEd 324	Abstract Algebra	3	R	R			D	R	R
MEd 325	Number Theory	3	R	R			D	R	R
MEd 326	Differential Equation	3	D	R			D	R	D

### E. Mandated Courses

NSTP 111	National Service Training Program 1	3		I					
NSTP 121	National Service Training Program 2	3		R					
PE 101	Physical Fitness, Gymnastics and Aerobics	2		I					R
PE 102	Rhythmic Activities	2		I					
PE 103	Individual and Dual Sports	2		R					
PE 104	Team Sports	2		R					

### F. Institutional Prerogative

MEd 327	Research in Mathematics 2	1	D	D	D	D	D	D	D
Ed 113	Management of Students' Behavior and Wellness	3			D	D	D	D	
Ed 114	Special Topics in Education	3			D	D	D	D	
Ed 116	Comprehensive Examination	3	D	D	D	D	D	D	D

Legend: **I** – Introduced, **R** – Reinforced, **D** - Demonstrated

### Course Description

Course Code	Course Title	Credit Units	Course Description
<b>A. General Education Courses</b>			
Fili 101	Kontekstwalisadong Komunikasyon sa Filipino	3	<p>Ang Fili 101 ay isang praktikal na kursong nagpapalawak at nagpapalalim sa kontekstwalisadong komunikasyon sa wikang Filipino ng mga mamamayang Pilipino sa kani-kanilang mga komunidad sa partikular, at sa buong lipunang Pilipino sa pangkalahatan.</p> <p>Nakatuon ang kursong ito sa makro kasanayang pakikinig at pagsasalita,</p>

			gayundin sa kasanayan sa paggamit ng iba'tibang tradisyonal at modernong midya na makabuluhan sa kontekstong Pilipino sa iba'tibang antas at larangan.
Fili 102	Filipino sa Iba't Ibang Disiplina	3	<p>Ang FILDIS ay isang praktikal na kursong nagpapalawak at nagpapalalim sa kasanayan sa malalim at mapanuring pagbasa, pagsulat, at pananaliksik sa wikang Filipino sa iba't ibang larangan, sa konteksto ng kontemporaryong sitwasyon at mga pangangailangan ng bansa at ng mga mamamayang Pilipino.</p> <p>Nakatuon ang kursong ito sa makrong kasanayang pagbasa at pagsulat, gamit ang mga makabuluhang pananaliksik sa wikang Filipino, bilang lunsaran ng pagsasagawa ng pananaliksik (mula sa pangangalap ng datos at pagsulat ng borador ng pananaliksik hanggang sa publikasyon at/o presentasyon nito) na nakaugat sa mga suliranin at realidad ng mga komunidad ng mga mamamayan sa bansa at maging sa komunidad ng mga Pilipino sa iba pang bansa. Saklaw rin ng kursong ito ang paglinang sa kasanayang pagsasalita, partikular sa presentasyon ng pananaliksik sa iba't ibang porma at venue.</p>
Fili 103	Retorika – Masining na Pagpapahayag	3	Ang Filipino 103 ay pag-aaral ng mga prinsipyo at proseso ng masining na pagpapahayag sa Filipino. Ang asignaturang ito ay nakatuon sa malayang pagtuklas at pagpapakita ng sariling kakayahan at talino sa pasalita at pasulat na pagpapahayag at pagbabahagi ng mga ito sa komunidad, bansa at daigdig.
GEEd 101	Understanding the Self	3	<p>The course deals with the nature of identity, as well as the factors and forces that affect the development and maintenance of personal identity. This course is intended to facilitate the exploration of the issues and concerns regarding self and identity to arrive at a better understanding of one's self.</p> <p>It strives to meet this goal by stressing the integration of the personal with the academic- contextualizing matters discussed in the classroom and in the everyday experiences of students- making for better learning, generating a new appreciation for the learning process, and developing a more critical and reflective attitude while enabling them to manage and improve their selves to attain a better quality of life.</p>

GEEd 102	Mathematics in the Modern World	3	This course deals with the nature of mathematics, appreciation of its practical, intellectual, and aesthetic dimensions, and application of mathematical tools in daily life.
GEEd 103	Life and Works of Rizal	3	This course covers the life and works of the country's national hero, José Rizal. Among the topics covered are Rizal's biography and his writings, particularly the novels <i>Noli me tangere</i> and <i>El Filibusterismo</i> , some of his essays, and various correspondences.
GEEd 104	The Contemporary World	3	<p>This course introduces the students to the contemporary world by examining the multifaceted phenomenon of globalization. Using various disciplines of the social sciences, it examines the economic, social, political, technological and other transformations that have created an increasing awareness of the interconnectedness of peoples and places around the globe.</p> <p>To this end, the course provides an overview of the various debates in global governance, development and sustainability. Beyond exposing the student to the world outside the Philippines, it seeks to inculcate a sense of global citizenship and global ethical responsibility.</p>
GEEd 105	Readings in the Philippine History	3	This course analyzes Philippines history from multiple perspectives through the lens of selected primary sources. Students are expected to do content and context analysis such as author's background and main arguments, compare different point of view, identify biases and examine the evidences presented in the document. The discussion will tackle traditional topics in history and other inter disciplinary themes that will deepen and broaden the students understanding of Philippines political, economic, cultural, social, scientific religious history. The end goal is to develop the historical and critical consciousness of the students so that they will become versatile, articulate, broadminded, morally upright and responsible citizens.
GEEd 106	Purposive Communication	3	Purposive Communication develops students' communicative competence and enhances their cultural and intercultural awareness through multimodal tasks. These provide them opportunities for communicating effectively and appropriately to a multicultural audience in a local or global context, in a physical or virtual environment. It equips students with tools for critical evaluation of a variety of texts and focuses on the power of language and

			<p>the impact of images to emphasize the importance of conveying messages responsibly.</p> <p>The knowledge, skills, and insights that students gain from this course may be used in their other academic endeavors, their chosen disciplines, and their future careers as they compose and produce relevant oral, written, audio-visual and/or web-based output for various purposes.</p>
GEEd 107	Ethics	3	<p>Ethics deals with principles of ethical behavior in modern society at the new level of the person, society, and in interaction with the environment and other shared resources (CMO 20 s 2013).</p> <p>Morality pertains to the standards of right and wrong that an individual originally picks up from the community. The course discusses the context and principles of ethical behavior in modern society at the level of individual, society, and in interaction with the environment and other shared resources. The course also teaches students to make moral decisions by using dominant moral frameworks and by applying a seven-step moral reasoning model to analyze and solve moral dilemmas.</p> <p>The course is organized according to the three (3) main elements of the moral experience: (a) agent, including context-cultural, communal, and environmental; (b) the act, and (c) reason or framework (for the act).</p> <p>This course includes the mandatory topic on taxation.</p>
GEEd 108	Art Appreciation	3	<p>The course aims to provide students the opportunity to observe, participate in, or otherwise experience works of art in order to appreciate their role and purpose in life. Students will be exposed to various works of art, ranging from the classical art forms to modern art installations, performance art, indie films, enhanced e-books and multimedia aesthetics. These works of art will be examined from an aesthetic point of view and also as reflections or critiques of the societies that produced them. The course will thus build upon and hone the skills of understanding, critical appreciation and expression of one's views.</p> <p>The course Art Appreciation (under the new GE Curriculum) is aimed at further strengthening the youth's awareness and</p>

			<p>deep appreciation for the arts. The course shall serve as a continuation of the Subject Contemporary Arts which was already taken in Senior High School. Apart from focusing on Philippine Arts, this course shall further try to situate the local arts in the global perspective and compare its status to standards of arts in the global arena.</p>
GEEd 109	Science, Technology and the Society	3	<p>The course deals with interactions between science and technology and social, cultural, political, and economic contexts that shape and are shaped by them.</p> <p>This interdisciplinary course engages students to confront the realities brought about by science and technology in society. Such realities pervade the personal, the public, and the global aspects of our living and are integral to human development. Scientific knowledge and technological development happen in the context of society with all its socio-political, cultural, economic, and philosophical underpinnings at play. This course seeks to instill reflective knowledge in the students that they are able to live the good life and display ethical decision making in the face of scientific and technological advancement.</p> <p>This course includes mandatory topics on climate change and environmental awareness.</p>
Litr 101	Sosyedad at Literatura/Panitikang Panlipunan	3	<p>Ang kursong ito ay gagamit ng pagtatasang pamamaraan tulad ng pagsusuri sa mga akda gamit ang iba't ibang pagdulog, pagsulat ng reaksyong papel, pagtatalakayan o pagbibigay ng opinyon at saloobin sa mga napapanahong isyung panlipunan, borador ng planong akademikong papel, patalatang buod ng mga pangyayari at/o mahahalagangkaisipan mula sa akdang binasa, at pagsulat ng maikling sanaysay hinggil sa mga binasang akda. Ang lahat ng mga ito ay ia-upload sa Classwork ng Google Classroom na mamarkahan batay sa ibinigay na Rubrik. Eksaminasyon</p> <p>Mayroong dalawang pangunahing pagsusulit sa isang semestre ( midterms at finals) na maaaring nakalagay sa Google Forms o Uploaded file na Eksaminasyong Papel. Ito rin ay maaaring gawain na ibibigay ng guro para sa higit na pagkatuto ng mga estudyante. Lahat ng eksaminasyong ito ay ibibigay sa itinakdang petsa at oras na ibibigay ng kolehiyo maliban na lamang kung may ibang paalala. Hindi limitado sa napag-aralan lamang ang maaaring isama sa</p>

			eksaminasyon sa halip maaari ring isama ang mga araling may kaugnayan sa paksa na napagtalakayan.
Litr 101	ASEAN Literature	3	<p>This course introduces students to fundamental prose and poetry from across Asia. These literary works shape awareness and viewpoints among people in ASEAN. It orients the learners on the diverse culture the members states have which nurture and build their identities as states and identity as a region as the learners find commonality in the diversity.</p> <p>This course opens awareness of being part of a region to embrace the ASEAN identity through literature.</p>
<b>B. Professional Education Courses</b>			
<i>Foundation/Theories and Concepts</i>			
Ed 101	The Child and Adolescent Learners and Learning Principles	3	<p>The course focuses on the current research and theory on the biological, linguistic, cognitive, social and emotional dimensions of development and the factors that affect the process of development.</p> <p>The course is structured to cover the key dimensions of the development of children and adolescents with emphasis on factors that have positive or negative effects on the natural course of development processes. It also proves the future teachers with a broad yet fairly detailed understanding of the development process that students undergo.</p>
Ed 102	The Teaching Profession	3	<p>This course deals with the teacher as a person and as a professional within the context of national and global teachers' standards and educational philosophies. It will include professional ethics, core values, and awareness of professional rights, privileges and responsibilities as well as the teachers' roles in the society as a transformative agent of change.</p> <p>The course will prepare students to become professional teachers who manifest global competitiveness, in-depth knowledge of multiculturalism, and profound understanding of the significant laws that are consequential to the ethical practice of the teaching profession.</p>
Ed 103	The Teacher and the Community, School Culture and Organizational Leadership	3	<p>This course focuses on society as a context upon which the schools have been established. Educational Philosophies that are related to the society as a foundation of</p>

			<p>schools and schooling shall be emphasized. Further, principles and theories on school culture and organizational leadership shall be included to prepare prospective teachers to become school leaders and managers.</p> <p>The course will prepare the students to become professionals who manifest an in-depth knowledge of the relationship between and among teachers, the parents and the community that support the school. It will also provide a strong foundation for understanding the relationship between organizational leadership and school culture that are necessary for building positive school-community partnership.</p>
Ed 106	Foundation on Special and Inclusive Education	3	<p>This course shall deal with philosophies, theories and legal bases of special needs and inclusive education, typical and atypical development of children, learning characteristics of students with special educational needs (gifted and talented, learners with difficulty seeing, learners with difficulty hearing, learners with difficulty communicating, learners with difficulty walking/ moving, learners with difficulty remembering and focusing learners, learners with difficulty with self-care) and strategies in teaching and managing these learners in the regular class.</p> <p>Likewise, the course will orient the pre-service teachers with the different terminologies used in special education which they can later use in the proper identification and description of their students. Additionally, they will also be equipped with knowledge in basic assessment procedures which they can utilize before making the necessary referrals. Knowledge in different approaches on how to deal with learners with special needs, especially in a classroom setting are also expected to be developed to the students who will be taking the course</p>
<b><i>Pedagogical Content Knowledge</i></b>			
Ed 104	Assessment in Learning 1	3	<p>This course introduces pre-service teachers to the principles, development and utilization of conventional assessment tools to improve the teaching-learning process. It emphasizes on the use of assessment of, as, and for, in measuring knowledge, comprehension and other higher thinking skills in the cognitive, psychomotor or affective domains. It allows pre-service teachers to go through the standard steps in test construction and development and the application in grading system. It also provides them training in</p>

			<p>scoring, organizing, analyzing, interpreting, and communicating assessment results and how they are used in improving teaching and learning.</p> <p>The course provides engaging and varied learning opportunities with integration of technology that will allow them to meet the program outcomes and standards of a beginning teacher; develop the 21<sup>st</sup> century skills of collaboration, communication, critical thinking and problem solving, and creative thinking; and be healthy, safe, engaged, supported, and challenged.</p>
Ed 105	Facilitating Learner-Centered Teaching	3	<p>This course explores the fundamental principles, processes and practices anchored on learner-centeredness and other educational psychologies as these apply to facilitate various teaching-learning delivery modes to enhance learning.</p> <p>The course will prepare the students to become professionals who manifest an in-depth knowledge in the concepts and application of Learner Centered Psychological Principles, Metacognition, Cognitive Learning Theories, Behaviorism, Constructivism, Psychosocial, Psychoanalytic, and Humanism Theories and Students' Diversity.</p>
Ed 107	Technology for Teaching and Learning 1	3	<p>This course is designed for prospective teachers to develop and use digital and non-digital teaching-learning resources using technology tools appropriate in various subject areas in the elementary level. Further, the course will provide opportunities for students to use technology tools to develop project-based collaborative activities and share resources among communities of practice.</p>
Ed 108	The Teacher and the School Curriculum	3	<p>This course includes the fundamental concepts and principles in curriculum and curriculum development as a foundation to engage prospective teachers as curricularists. The more active role of the teacher in planning, implementing and evaluating school-curriculum as well as in managing school curriculum change vis-a-vis various context of teaching-learning and curricular reforms shall be given emphasis.</p> <p>This course is designed to examine the principles underlying the development of a K-12 school curriculum. Emphasis will be placed on methods of determining curriculum priorities, objectives, scope and sequence, and organizational patterns. The</p>



			<p>roles of state and local government, as well as diversity issues, will be examined. Application of curriculum, instruction, and assessment issues will be studied. An understanding of how curriculum design facilitates student-learning opportunities will be scrutinized. Included is an examination of standards and benchmarks, state and national influence, and curriculum assessments.</p> <p>The course also prepares the teacher candidate to make decisions about best practices that should be implemented in the classroom as a part of the teaching and learning process. In addition, this course also explores researched based methods for implementing instruction based upon the work of theorists that have presented pedagogy according to strategies and methodologies proven to be effective.</p>
Ed 109	Assessment in Learning 2	3	<p>Assessment is an essential component of the teaching and learning process. Classroom teachers employ informal and formal assessments on an ongoing basis to make decisions about their students, evaluate the success of their instruction, and to monitor classroom climate. The role of assessment in the instructional process and the learning of students makes it necessary for pre-service teachers to gain skills and competencies about assessment and help them to become competent professional teachers.</p> <p>This focuses on the principles, development, and utilization of alternative forms of assessment in measuring authentic learning. It emphasizes on how to assess process-and product-oriented learning outcomes as well as affective learning. Students will experience how to develop rubrics for performance-and product-based assessment through learning opportunities that will allow them to meet the program outcomes and standards of a beginning teacher; develop the 21<sup>st</sup> century skills of collaboration, communication, critical thinking and problem solving, and creative thinking; and be healthy, safe, engaged, supported and challenged.</p>
Ed 110	Building and Enhancing New Literacies Across the Curriculum	3	<p>This course introduces the concepts of new literacies in the 21<sup>st</sup> century as an evolving social phenomena and shared cultural practices across learning areas. The 21<sup>st</sup> century literacies shall include (a) globalization and multi-cultural literacy, (b) social literacy, (c) media literacy, (d) financial literacy, (e) cyber literacy/digital</p>

			<p>literacy, (f) eco-literacy, and (g) arts and creativity literacy. Course content is informed by relevant concepts, theories, research, and practice pertaining to the 21<sup>st</sup> literacies.</p> <p>This course aims to expand pre-service teacher's knowledge relative to new 21<sup>st</sup> literacies to enable them to apply knowledge gained in designing and delivering effective literacy instruction across the K-12 curriculum.</p>
<b>Experiential Learning</b>			
Ed 111	Field Study 1	3	<p>This is the first experiential course which will immerse a future teacher to actual classroom situation and learning environment where direct observation of teaching learning episodes that focuses on application of educational theories learned in content and pedagogy courses will be made. Observations on learners' behavior, motivation, teacher's strategies of teaching, classroom management, assessment in learning among others shall be given emphasis. A portfolio shall be required in the course.</p>
Ed 112	Field Study 2	3	<p>This course is a continuation of Field Study 1. It is school based and allows a pre-service student to participate and assist in a limited actual teaching-learning activities that relate to assessment of learning, preparation of instructional materials, preparation of the bulletin boards, and other routines in the classroom. A portfolio which will contain sample lesson plans and demonstration teaching of at least one subject content area will be required. An action research shall be encouraged to start in this course and conclude during the internship.</p>
Ed 115	Teaching Internship	6	<p>This course is a year-long engagement that supports authentic experiential learning from field study and actual classroom immersion of the prospective teachers. It begins with field study experiences through a) observation and b) participation and will progress to c) teaching assistantship and d) guided/mentored classroom teaching.</p>
<b>C. Major/Specialization Courses</b>			
MEd 111	History of Mathematics	3	<p>This course will provide students the historical context and timeline that led to the present understanding and applications of the different branches of mathematics. This will emphasize the humanistic aspects of mathematics that will encourage and motivate students for better understanding of the course.</p> <p>Students will demonstrate a deeper understanding of the mathematics they have</p>

			already studied by seeing how it was developed over time and in various places. It encourages creative and flexible thinking by allowing students to see historical evidence that there are different and perfectly valid ways to view concepts and to carry out computations.
MEd 111	College and Advanced Algebra	3	This is a 3-unit course that will provide students with tools that they need to master algebra. It will enhance students' knowledge on properties of the real number system, operations on different types of algebraic expressions, and the solution of various types of equations and inequalities. The course will also cover the prerequisites to trigonometry and calculus, specifically transcendental and non-transcendental functions, including the characteristics of their graphs and applications. This course will enhance student's knowledge and skills in Algebra that will prepare them to perform and understand other field of mathematics to become competent teachers of the 21st century.
MEd 121	Trigonometry	3	The course introduces the students to circular and trigonometric functions, trigonometric identities, and to the polar coordinate system. The students then apply concepts in this topic to applications in problem solving.
MEd 122	Plane and Solid Geometry	3	This course covers topics on Euclidean Geometry. The topics are discussed using both deductive and inductive methods to conjecture definitions, corollaries, postulates, and theorems on Plane and Solid Geometry. It provides the concepts and skills needed by students to consolidate their understanding of geometric principles, axioms, properties and theorems. It also provides a basic yet formal understanding of shapes and figures, their properties and applications in preparation for a course in Analytic Geometry.
MEd 123	Logic and Set Theory	3	The course is a study of mathematical logic which covers topics such as propositions, logical operators, rules of replacement, rules of inference, algebra of logic and quantifiers. It also includes a discussion of elementary theory of sets such as fundamental concepts of sets, set theorems and set operations. This also provides an introduction to the basic concepts and results of mathematical logic and set theory. Also, the course will familiarize students with abstract mathematical thinking. It will explain how different mathematical theories can be modeled inside the set theoretic universe, and discuss the role of the axiom of choice.

			Synchronous and Asynchronous mode of delivery will be use to allow students to work independently online and interact with peers and instructor to acquire and enhance needed competencies for the course.
MEd 211	Modern Geometry	3	The course is an enrichment of the course on Euclidean Geometry. It discusses the properties and applications of other types of geometries such as finite geometry, non-Euclidean geometry and projective geometry. The course will develop the skills of logical reasoning, use of axiomatic method and careful presentation of proof.
MEd 212	Calculus 1 with Analytic Geometry	3	The course will equip students with knowledge and skills needed to be able to determine limits of functions, to differentiate and to integrate algebraic, exponential, logarithmic and trigonometric functions in one variable. It also includes exposure to more challenging problems covering continuity and areas of regions
MEd 213	Elementary Statistics and Probability	3	The course equips the students with the basic statistical tools to understand various phenomena. The topics on mean, variance, sampling and estimation eventually allow the students to be able to perform hypothesis testing on real-life problems from different fields. The course includes applications and data analysis with computations carried out using SPSS. The course will develop the skills of statistical reasoning to data analysis and graph. The course will use technology for mathematical reasoning and solve real-life problems using statistics.
MEd 221	Calculus 2	4	The course aims to further develop students' understanding of differential and integral calculus. It covers the methods and techniques of integration, indeterminate forms and improper integrals of algebraic and transcendental functions.
MEd 222	Linear Algebra	3	The course provides a basic understanding of vector spaces, including the study of matrices, their properties and matrix operations. It also covers the application of matrices in systems of linear equations and linear transformations.
MEd 311	Calculus 3	3	The course aims to provide the students with an understanding of the application of differentiation and integration in sequences, infinite series, power series, as well as of multiple integration for functions in several variables. Moreover, students will be able to apply these concepts to problem solving. The course will develop the skills of logical reasoning, use of axiomatic method and careful presentation of proof.

MEd 312	Advanced Statistics	3	The course deals with non-parametric statistics and covers the topics on test of association such as Spearman Rho, Phi Coefficient, Contingency Coefficient, Biserial and test of differences such as Mann-Whitney U, Wilcoxon. It also includes applications and data analysis with computations carried out using SPSS. This course also aims to develop competent pre-service mathematics teacher and researcher that will be active and responsive participants to meet the needs of the community.
MEd 313	Principles & Strategies in Teaching Mathematics	3	The course deals with the applications of the principles, the strategies in teaching, and philosophical foundations of teaching mathematics. These are then applied in lesson planning and microteaching.
MEd 314	Problem Solving, Mathematical Investigation and Modeling	3	The course integrates topics from all areas of pre-calculus mathematics. It deepens and further enhances the students' understanding or real-life applications of mathematics through investigating, pattern finding, testing and justifying conjectures, and making generalizations. Mathematical Investigation will concentrate on study of matrices, linear relationships and equations, functions, function transformations and exponential functions. This course will enhance student's knowledge and skills in Problem Solving, Mathematical Investigation and Modelling that will prepare them to perform and understand its application to other field of mathematics and to become competent teachers of the 21st century.
MEd 315	Research in Mathematics 1	4	This course is intended for third year BSEd major in Mathematics students who are enrolled in the First Semester, Academic Year 2020-2021. Research in Mathematics 1 aims to prepare prospective mathematics pre-service teachers to undertake a research project. It gives students the opportunity to conduct researches that will address problems, issues and concerns in mathematics teaching and learning. It also showcases their research skills through the application of the mathematical content and processes they have learned previously. It allows student to learn the process of research that is selecting a topic, reviewing the literature, collecting data and evaluation of data and helps them understand how to find answer to a question scientifically.

MEd 321	Technology Application in Mathematics Teaching	3	This course will focus on the application, design, production, utilization and evaluation of Information Communication Technology materials for teaching and learning in mathematics education programs. The major requirement for this course is an ICT-integrated and Project-based learning plan aligned to the K to 12 Curriculum. All the learning activities and course requirements will revolve around the student-teacher developed Learning Plan.
MEd 322	Assessment and Evaluation in Mathematics	3	The course deals with traditional and authentic assessment methods for evaluating mathematics learning. It covers the purposes of instruction and assessment, the relationship of assessment to content and performance standards and discussions on the issues and trends in assessment specifically in mathematics teaching.
MEd 323	Mathematics of Investment	3	The course introduces students with a basic understanding of the applications of mathematical concepts and skills in economics, business and accounting. It includes determining the time value of money using simple and compound interest and discounting, variation of annuities, amortization of stocks and bonds and sinking funds.
MEd 324	Abstract Algebra	3	The course is a study of basic algebraic structures such as groups, rings, integral domains, and fields. It provides a basic understanding of relations focusing on isomorphism. It aims to enhance the student's skills in constructing mathematical proofs and develop their symbolic thinking and appreciation of mathematical structures. This is a 3-unit course which will emphasize and provide valuable learning experiences on groups, rings, and fields since this will expose students to axiomatic treatment of mathematics.
MEd 325	Number Theory	3	The course is a study of the properties of numbers and their proofs. It presents the students with different methods of mathematical proving. It focuses on the discussion of the set of integers that including Unique Prime Factorization and Divisibility Rule, Euclidean Algorithm, Linear Congruences and Linear Diophantine Equations.  To facilitate this mode, Google Meet, and/or phone calls will be considered for synchronous discussion of the lessons while Google Classroom, Messenger, and/or text messaging will be used for asynchronous learning.

<b>D. Mandated Courses</b>			
NSTP 111	National Service Training Program 1	3	A program designed as a service component of the NSTP contributory to the general welfare and development of the community members particularly in terms of health education, safety, livelihood, recreation, environmental protection and the moral of the citizenry. The teaching learning activities is focused in the development of the students to become assets of the community, society and to the nation as a whole. Thus, making them aware of their responsibilities as individuals and integrate values education, transformational leadership and sustainable social mobilization for youth and family development, community building, national security, and global solidarity.
NSTP 112	National Service Training Program 2	3	The course mandated by Republic Act No. 9163, otherwise known as the National Service Training Act of 2001, aims to enhance the civic consciousness of the students “by developing the ethics of service and patriotism” while undergoing Reserved Officers Training Corps (ROTC) or Literacy Training Service (LTS). ROTC 1 is an NSTP program component designed to provide military training to college level students to motivate, train, organize and mobilize them for national defense preparedness. It intends to prepare and equip the students with knowledge, skills, and attitude in carrying out national service in the event of national emergencies and to assist the socio-economic development of the country. The LTS is another program component designed to train students to become teachers of literacy and numeracy skills to school children, out of school youth, and other segments of society. LTS I introduces students to the vision, mission, and core values of the university and the NSTP department in molding students to be first class citizens of their respective community and country. It orients students about: Legal Bases of NSTP, Philippines Constitution, Flag Heraldic Code of the Philippines, Values, Volunteer Act of 2007, Drug Education, Disaster Risk Reduction and Management, Environmental Protection, and National Security Concerns. It prepares the mind of the student for community service.
PE 101	Physical Fitness, Gymnastics and Aerobics	2	This course builds upon the understanding of the meaning, components, benefits and scientific bases of physical fitness, as well as the administration of physical fitness tests. It also includes locomotors, non-locomotors, gymnastics, and aerobic activities intended

			to develop the fitness of the students. This will help the students adopt positive attitudes towards lifetime participation in physical activities and improvement of one's health.
PE 102	Rhythmic Activities	2	This course is designed to develop students' rhythmic skills which includes responding and moving the body in time with the beat, tempo, or pitch of music. Dancing and gymnastics require high levels of rhythmic competency. As with all physical skills, development of rhythmic skills is a sequential process.
PE 103	Individual and Dual Sports	2	The purpose of this course is to provide learning experiences that will lead to the development of basic skills in individual and dual sports. In addition to skill acquisition, the course will focus on how to plan and implement the four stages of skill development in games through the use of extending, refining, and application tasks. An emphasis will be placed on the use of the game stages and movement framework as a guide for designing a variety of sport game experiences for students.
PE 104	Team Sports	2	This course introduces the art of team sports which are practiced between opposing teams, where the players generally interact directly and simultaneously between them to achieve an objective. The objective often involves teammates facilitating the movement of a ball or similar object in accordance with a set of rules, in order to score points. Students will improve and demonstrate their cardiovascular, flexibility and strength fitness levels by participating in the class activities. They will develop new insights and understanding about the physical body and the importance of fitness in their daily activities. They will also demonstrate knowledge of rules and officiating the various activities.
<b>E. Institutional Prerogative Courses</b>			
MEd 326	Differential Equations	3	This is an introductory course in ordinary differential equations. It focuses primarily on techniques for finding explicit solutions to linear differential equations. Topics include first order ordinary differential equations, linear differential equations, linear equations with constant coefficients, nonhomogeneous equations, undetermined coefficients and variation of parameters, linear systems of equations; the existence and uniqueness of solutions.
MEd 327	Research in Mathematics 2	1	The course aims to prepare prospective mathematics teachers to undertake research project. It gives teachers the opportunity to



			conduct researches that address problems, issues and concerns in mathematics teaching and learning. It also showcases their research skills through the application of the mathematical content and processes they have learned previously. This will also help students to organize their paper discussion indicating proficiency in their particular topic creating a logical constructed paper. Through this course, pre-service secondary school teachers have a venue for completing their undergraduate thesis. Students concentrate on collecting data, finishing their thesis write-up, orally presenting a defensible result of their research work, and submitting a final copy of their thesis.
Ed 113	Management of Students' Behavior and Wellness	3	This course provides essential knowledge and skills on behavior management and wellness education. This will help secondary pre-service mathematics major students to become professional teachers who will be able to create an environment that promotes positive behavior and wellness. Best practices, strategies and interventions will be discussed to help them detect and handle students' problems/issues.
Ed 114	Special Topics in Education	3	This course will enable students to examine critically issues affecting the Philippine educational system and their implications in providing quality and accessible education and in preparing prospective teachers. Specifically, students will gain knowledge, concepts and context on issues that will help them to be innovative, effective and efficient future teachers.
Ed 116	Comprehensive Examination	3	This course combines both theory and practice in order to teach students the necessary knowledge and skills elementary school teachers need. In addition, this serves as an avenue for students to share, communicate, recall and give feedback on their day to day experiences as pre-service teachers and prepare themselves in the comprehensive examination.  Review sessions are conducted and covers subjects for general education, professional education courses; and area of specialization.

### **Teacher Education Advisory Council (TEAC)**

A Teacher Education Advisory Council for all Teacher Education programs is a team of external stakeholders for teacher education program. It consists of alumni, employers and representatives from an Accredited Professional Organization (APO). Alumni members are graduates of the program with at least supervisory position at the time of Council assignment while employers are school principals where a number of program alumni are employed. The Council shall also include two internal stakeholders from the program – one (1) faculty member and one (1) student

**Program Administration**

**Dean/Department Head.** The Dean/Department Head offering the degree shall be employed fulltime and must possess the following qualifications:

1. Filipino citizen;
2. Holder of Doctorate degree in Education or related field;
3. Holder of valid certificate of registration and Board Licensure Examination for Professional Teachers (BLEPT);
4. With a total of at least three (3) years of a very satisfactory teaching experiences in basic education and/or tertiary level; and
5. Preferably with at least two (2) years of managerial/administrative experience.

**Outcomes Mapping**

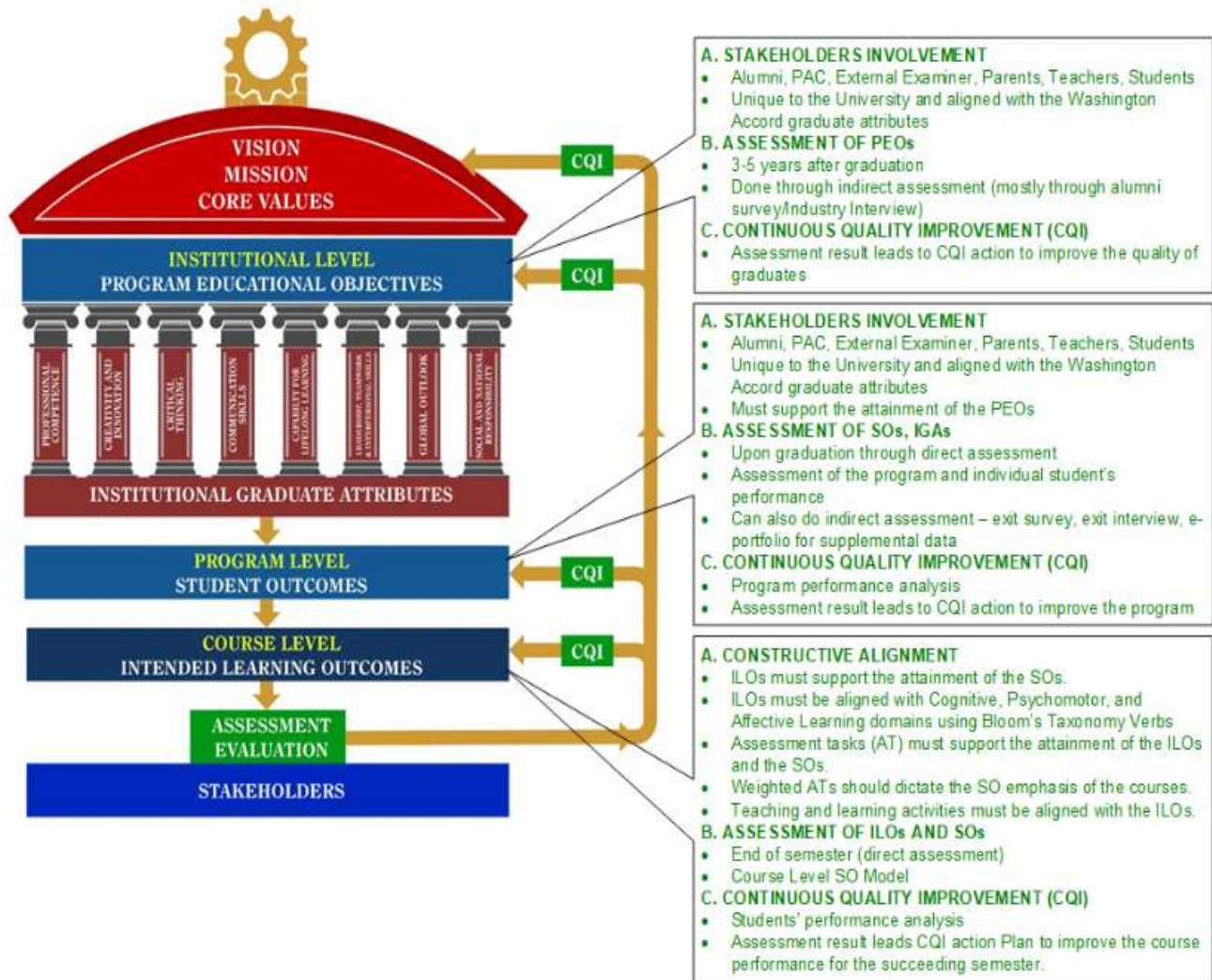
**Rationale**

The PEOs support the attainment of the university mission. Since the mission statement highlights four (4) focused areas for sustainable development, the alumni are expected to achieve all of the PEOs based on defined performance indicator (PI). The indicated mapping of the mission to PEOs will be used as basis for assessment of the PEOs, 1 year after graduation. The PEO assessment will be conducted through alumni and employers survey or interview to determine whether the graduates’ cohort achieved the PI for each PEO. Each PEO has at least 3 PIs where an alumnus is expected to achieve at least 1 PI for each PEO. The PEOs are considered achieved if at least 95% of the graduates’ cohort achieved all PEOs. Should the result be significantly lower than the benchmarked PI for a number of cohorts, a continues quality improvement (CQI) action has to be conducted at the program level.

<b>PEO-Mission Statement, PEO-IGA, and PEO-SDG Mapping</b>																	
PEO	University Mision				Institutional Graduate Attributes (IGA)								Sustainable Development Goals (SDG)				
	Innovation	Multidisciplinary Research	Community & Industry Partnerships	Sustainable Development	IGA 1	IGA 2	IGA 3	IGA 4	IGA 5	IGA 6	IGA 7	IGA 8	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5
PEO1	x			x	x			x					x		x	x	x
PEO2	x	x	x		x	x	x			x			x	x	x	x	x
PEO3		x			x	x	x	x		x			x	x			x
PEO4		x			x	x	x		x	x	x	x	x		x	x	x
PEO5	x		x			x	x		x	x	x	x	x		x	x	x

<b>STUDENT OUTCOMES-PROGRAM EDUCATIONAL OBJECTIVES MAPPING</b>					
SO	PEO1	PEO2	PEO3	PEO4	PEO5
SO1	x		x	x	x
SO2		x			
SO3	x	x			x
SO4	x		x		
SO5	x			x	x
SO6		x			
SO7				x	x

## Batangas State University OBE Framework



### Performance Indicators (PI) for PEOs and SOs

#### Program Educational Objectives (PEOs)

**PI:** Program PEO is considered attained if at least 95% of graduates achieved at least one (1) PI for each PEO

#### PEO1 Specialist

PI1 Explain and illustrate clearly, accurately, and comprehensively the basic mathematical concepts using relevant examples as needed.

PI2 Demonstrate in detail basic mathematical procedures.

PI3 PI3: Show the connection between mathematical concepts that are related to one another.

#### PEO2 Innovator

PI1 Provide timely and relevant teaching pedagogies

PI2 Ensure equal treatment and opportunity for students' learning and development

PI3 Devise meaningful learning experiences for students

#### PEO3 Proficient.

PI1 Ensure appropriate teaching lessons and assessment tools for students

PI2 Design teaching and learning strategies and assessment considering the students' level of intelligence and understanding

PI3 Show creativity and resourcefulness in the lesson presentation

#### PEO4 Professional and Life-long Learner.

PI1 Sustain and uphold excellence in the teaching profession

PI2 Recognize the need to increase competence and qualification through pursuance of

post-graduate degrees, attendance to trainings and seminars and research involvement  
PI3 Establish open relationship between and among stakeholders to ensure collegial support and undertakings

**PEO5 Extensionist.**

- PI1 Establish linkages and membership to relevant professional organization
- PI2 Extend support to the needy individuals and reflect humanitarian consideration at all times
- PI3 Share technical and manpower expertise to support the community

**Student Outcomes**

**SO1 Mathematical Proficiency**

- PI1 Explain and illustrate clearly, accurately, and comprehensively the basic mathematical concepts using relevant examples as needed.
- PI2 Demonstrate in detail basic mathematical procedures.
- PI3 Show the connection between mathematical concepts that are related to one another.
- PI4 Provide examples to illustrate the application of mathematical concepts and procedures.

**SO2 Knowledge of Curriculum**

- PI1 Create a curriculum that shows how mathematics can be integrated with other curricular areas.
- PI2 Identify teaching activities which support the implementation of the curriculum guide.
- PI3 Develop and utilize instructional materials that support the integration of mathematics with other curricular areas.
- PI4 Utilize appropriate technologies to achieve the learning outcomes.

**SO3 Pedagogical Content Knowledge.**

- PI1 Demonstrate skills in various methods of learning in mathematics such as conducting investigations, modelling, and doing research.
- PI2 Create and utilize learning experiences in the classroom which develop the learners' skills in discovery learning, problem solving, and critical thinking

**SO4 Assessment and Reporting**

- PI1 Design and utilize varied assessment tools in mathematics, including alternative forms of assessment
- PI2 Analyze assessment results and use these to improve teaching and learning
- PI3 Provide timely feedback of assessment results to students

**SO5 Critical Thinking and Problem Solving.**

- PI1 Demonstrate skills in various methods of problem-solving heuristics
- PI2 Select suitable examples to explain the various problem-solving heuristics
- PI3 Manifest creativity and critical thinking when selecting examples and problems to be used in the classroom and in the assessment of students' learning.

PI4 Use varied resources for selecting and creating problems to develop students' problem-solving skills.

**SO6 Technological Pedagogical Knowledge**

- PI1 Demonstrate knowledge and skills in varied approaches and methods of teaching mathematics
- PI2 Manifest discretion when selecting approaches or methods that would be effective teaching a particular lesson.
- PI3 Utilizes a variety of student-centered approaches and methods in the classroom

PI4 Demonstrate skills in the use of common mathematical software for teaching and learning mathematical concepts, i.e. Graphmatica, Geogebra and Geometers' Sketchpad.

PI5 Develop and use materials that guide the students in using a mathematical software for discovering and learning mathematical concepts.

**SO7 Lifelong Learning and Values.**

PI1 Model in class such mathematical attitudes as delight after having found the solution to a problem or a sense of wonder at how certain mathematical concepts evolved.

PI2 Develop lessons that can help students appreciate the use of mathematics in daily life.