

Republic of the Philippines
BATANGAS STATE UNIVERSITY
The National Engineering University

Lipa Campus

A. Tanco Drive, Brgy. Marawuoy, Lipa City, Batangas, Philippines 4217

Tel Nos.: (+63 43) 980-0385; 980-0387; 980-0392 to 94; 425-7158 to 62 loc. 3128

E-mail Address: cte.lipa@g.batstate-u.edu.ph | Website Address: <http://www.batstate-u.edu.ph>

College of Teacher Education

CURRICULUM

Bachelor of Secondary Education

Major in Mathematics

Academic Year 2023-2024

Reference CMOs: CMO No.20, s. 2013, CMO No. 75, s. 2017, CMO No. 4, s. 2018 and CMO Nos. 39 and 40, S. 2021

Curriculum Description

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

Program Educational Objectives (PEO)

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

1. demonstrate comprehensive and up-to-date knowledge in a specific field of specialization in the secondary education curriculum by engaging in scholarly and research activities and by maximizing opportunities for lifelong learning.
2. 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.
3. 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 secondary learners.
4. 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.
5. establish sustainable partnerships and linkages with the professional community and provide assistance to the under served, depressed, illiterate and less skilled members of society through extension activities and community service.

Institutional Graduate Attributes (IGA)

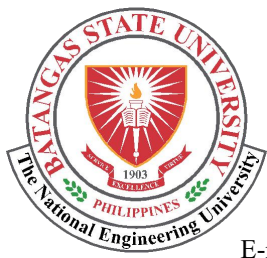
The student should achieve at least 75% for each IGA upon graduation.

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.



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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.

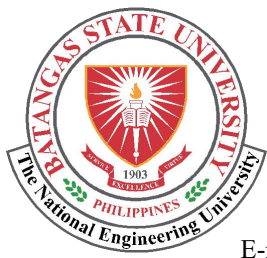
Program Outcomes

The graduates of the program have the ability to:

- a. exhibit competence in mathematical concepts and procedures;
- b. exhibit proficiency in relating mathematics to other curricular areas;
- c. manifest meaningful and comprehensive pedagogical content knowledge (pck) 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 and non-routine problems with different levels of complexity;
- f. use effectively appropriate approaches, methods, and techniques in teaching mathematics including technological tools; and
- g. appreciate mathematics as an opportunity for creative work, moments of enlightenment, discovery and gaining insights of the world.

Curriculum Components

Code	Courses	Units	Total
	A. General Education Courses (CMO No. 20, Series of 2013 and CMO No. 4, Series of 2018)		42 units
Fili 101	Kontekstwalisadong Komunikasyon sa Filipino	3	
Fili 102	Filipino sa Iba't Ibang Disiplina	3	
Fili 103	Retorika – Masining na Pagpapahayag	3	
GEd 101	Understanding the Self	3	
GEd 102	Mathematics in the Modern World	3	
GEd 103	Life and Works of Rizal	3	
GEd 104	The Contemporary World	3	
GEd 105	Reading in the Philippine History	3	
GEd 106	Purposive Communication	3	
GEd 107	Ethics	3	
GEd 108	Art Appreciation	3	
GEd 109	Science, Technology and the Society	3	
Litr 101	Sosyedad at Literatura/Panitikang Panlipunan	3	
Litr 102	ASEAN Literature	3	
	B. Professional Education Courses		42 units



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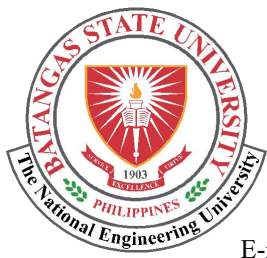
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	<i>Foundation/Theories and Concepts</i>		
Ed 101	The Child and Adolescent Learners and Learning Principles	3	
Ed 102	The Teaching Profession	3	
Ed 103	The Teacher and the Community, School Culture and Organizational Leadership	3	
Ed 106	Foundation of Special and Inclusive Education	3	
	<i>Pedagogical Content Knowledge</i>		
Ed 105	Facilitating Learner-Centered Teaching	3	
Ed 104	Assessment in Learning 1	3	
Ed 109	Assessment in Learning 2	3	
Ed 107	Technology for Teaching and Learning 1	3	
Ed 108	The Teacher and the School Curriculum	3	
Ed 110	Building and Enhancing New Literacies Across the Curriculum	3	
	<i>Experiential Learning</i>		
Ed 111	Field Study 1	3	
Ed 112	Field Study 2	3	
Ed 115	Teaching Internship	6	
	C. Major Courses		63 units
MEd 111	History of Mathematics	5	
MEd 112	College & Advanced Algebra	5	
MEd 121	Trigonometry	3	
MEd 122	Plane & Solid Geometry	3	
MEd 123	Logic & Set Theory	4	
MEd 211	Modern Geometry	5	
MEd 212	Calculus 1 with Analytical Geometry	3	
MEd 213	Elementary Statistics & Probability	4	
MEd 221	Calculus 2	4	
MEd 222	Linear Algebra	4	
MEd 311	Calculus 3	4	
MEd 312	Advanced Statistics	3	
MEd 313	Principles & Strategies in Teaching Mathematics	3	
MEd 314	Problem Solving, Mathematical Investigation & Modeling	3	
MEd 315	Research in Mathematics 1	3	
MEd 321	Technology Application in Mathematics Teaching	3	
MEd 322	Assessment & Evaluation in Mathematics	4	
MEd 323	Mathematics of Investment	4	
MEd 324	Abstract Algebra	3	
MEd 325	Number Theory	3	
	D. Mandated Courses		14 units
NSTP 111	National Service Training Program 1	3	
NSTP 121	National Service Training Program 2	3	
PATHFit1	Movement Competency Training	2	
PATHFit2	Exercise-Based Fitness Activities	2	
PATHFit3	Traditional and Recreational Games	2	
PATHFit4	Team Sports (Basketball and Volleyball)	2	
	E. Institutional Prerogative		13 units
Ed 113	Management of Students' Behavior and Wellness	3	
Ed 114	Special Topics in Education	3	
Ed 116	Comprehensive Examination	3	
MEd 326	Differential Equation	3	
MEd 327	Research in Mathematics 2	1	

SUMMARY	
Courses	Number of Units



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General Education	42
Professional Education	42
Specialization	63
Mandated	14
Institutional Prerogative	13
TOTAL	174

PROGRAM OF STUDY

Year	Course Code	Course Title	Credits	Lec	Lab	RLE	Pre-requisite(s)	Co-requisite(s)
Year 1	FIRST SEMESTER							
	NSTP 111	National Service Training Program 1	3	3	-		-	-
	PATHFit1	Movement Competency Training	2	2	-		-	-
	GEEd 101	Understanding the Self	3	3	-		-	-
	GEEd 102	Mathematics in the Modern World	3	3	-		-	-
	GEEd 103	Life and Works of Rizal	3	3	-		-	-
	Fili 101	Kontekstwalisadong Komunikasyon sa Filipino	3	3	-		-	-
	Ed 101	The Child and Adolescent Learners and Learning Principles	3	3	-		-	-
	MEd 111	History of Mathematics	3	3	-		-	-
	MEd 112	College & Advanced Algebra	3	3	-		-	-
	TOTAL		26	26	-			
Year 1	SECOND SEMESTER							
	NSTP 121	National Service Training Program 2	3	3	-		NSTP 111	-
	PATHFit2	Exercise-Based Fitness Activities	2	2	-		PATHFit1	-
	GEEd 104	The Contemporary World	3	3	-		-	-
	GEEd 105	Reading in the Philippine History	3	3	-		-	-
	GEEd 106	Purposive Communication	3	3	-		-	-
	Litr 101	Sosyedad at Literatura/Panitikang Panlipunan	3	3	-		-	-
	Ed 102	The Teaching Profession	3	3	-		-	-
	MEd 121	Trigonometry	3	3	-		MEd 112	-
	MEd 122	Plane & Solid Geometry	3	3	-		MEd 112	-
	MEd 123	Logic & Set Theory	3	3	-		-	-
	TOTAL		29	29	-			
Year 2	FIRST SEMESTER							
	PATHFit3	Traditional and Recreational Games	2	2	-		PATHFit1, PATHFit2	-
	GEEd 107	Ethics	3	3	-		-	-
	GEEd 108	Art Appreciation	3	3	-		-	-
	Ed 103	The Teacher and the Community, School Culture and Organizational Leadership	3	3	-		Ed 102	-
	Ed 104	Assessment in Learning 1	3	3	-		-	-
	Ed 105	Facilitating Learner-Centered Teaching	3	3	-		Ed 101	-



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	MEd 211	Modern Geometry	3	3	-		MEd 122, MEd 123	-
	MEd 212	Calculus 1 with Analytical Geometry	4	4	-		MEd 112, MEd 121, MEd 122	-
	MEd 213	Elementary Statistics & Probability	3	3	-		-	
	TOTAL		27	27	-			
Year 2	SECOND SEMESTER							
	PATHFit4	Team Sports (Basketball and Volleyball)	2	2	-		PATHFit1, PATHFit2	-
	GEd 109	Science, Technology and the Society	3	3	-		-	-
	Fili 102	Filipino sa Iba't Ibang Disiplina	3	3	-		-	-
	Ed 106	Foundation of Special and Inclusive Education	3	3	-		-	-
	Ed 107	Technology for Teaching and Learning 1	3	3	-		-	-
	Ed 108	The Teacher and the School Curriculum	3	3	-		-	-
	MEd 221	Calculus 2	4	4	-		MEd 212	-
	MEd 222	Linear Algebra	3	3	-		MEd 123	-
	TOTAL		24	24	-			
Year 3	FIRST SEMESTER							
	Fili 103	Retorika – Masing na Pagpapahayag	3	3	-		Fili 101, Fili 102	-
	Ed 109	Assessment in Learning 2	3	3	-		Ed 104	-
	Ed 110	Building and Enhancing New Literacies Across the Curriculum	3	3	-		-	-
	MEd 311	Calculus 3	3	3	-		MEd 221	-
	MEd 312	Advanced Statistics	3	3	-		MEd 213	-
	MEd 313	Principles & Strategies in Teaching Mathematics	3	3	-		Ed 105	-
	MEd 314	Problem Solving, Mathematical Investigation & Modeling	3	3	-		MEd 112, MEd 122, MEd 123	-
	MEd 315	Research in Mathematics 1	4	4	-		MEd 312*	-
	TOTAL		25	25	-			
Year 3	SECOND SEMESTER							
	Litr 102	ASEAN Literature	3	3	-		-	-
	MEd 321	Technology Application in Mathematics Teaching	3	3	-		Ed 107	-
	MEd 322	Assessment & Evaluation in Mathematics	3	3	-		MEd 312, Ed 109	-
	MEd 323	Mathematics of Investment	3	3	-		MEd 112	-
	MEd 324	Abstract Algebra	3	3	-		MEd 123	-
	MEd 325	Number Theory	3	3	-		MEd 112, MEd 123	-
	MEd 326	Differential Equation	3	3	-		MEd 311	-
	MEd 327	Research in Mathematics 2	1	1	-		MEd 315	-
	TOTAL		22	22	-			
Year 4	FIRST SEMESTER							
	Ed 111	Field Study 1	3	3	-		Ed 101 to Ed 110, All MED courses	-
	Ed 112	Field Study 2	3	3	-		Ed 101 to Ed 110,	-



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							All MEd courses	
	Ed 113	Management of Students' Behavior and Wellness	3	3	-		-	-
	Ed 114	Special Topics in Education	3	3	-		-	-
	TOTAL		12	12	-			
Year 4	SECOND SEMESTER							
	Ed 115	Teaching Internship	6	6	-		Ed 111, 112	
	Ed 116	Comprehensive Examination	3	3	-		All Academic Courses	
	TOTAL		9	9	-			