



Republic of the Philippines
BATANGAS STATE UNIVERSITY
The National Engineering University
ARASOF-Nasugbu Campus
R. Martinez St., Brgy. Bucana, Nasugbu, Batangas, Philippines 4231
Tel Nos.: +63 917 107 2200

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

College of Teacher Education

COLLEGE OF TEACHER EDUCATION Bachelor of Secondary Education (BSEd) Major in Mathematics

Academic Year 2023- 2024

Reference CMOS: CMO No. 20 s. 2013, CMO No. 75, s. 2017, CMO No. 4 s.2018, CMO No. 39, s. 2021 and CMO No. 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 at 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 at the Secondary Level.

Program Objectives

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 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 code of ethics for professional 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
5. establish sustainable partnerships and linkages with the professional community and provide assistance to the undeserved, oppressed, illiterate and less skilled members of society through extension activities and community service.



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Institutional Graduate Attributes (IGA)

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 Filipino.

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 cultures.

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 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;



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- c. manifest meaningful and comprehensive pedagogical content knowledge (pck) of mathematics;
- d. demonstrate competence in designing, construction 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

	Courses	Units	Total
	A. General Education Courses (CMO No. 20 s. 2013 and CMO No. 4 s. 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	Readings in 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
	<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 104	Assessment in Learning 1	3	
Ed 105	Facilitating Learner-Centered Teaching	3	
Ed 107	Technology for Teaching and Learning 1	3	
Ed 108	The Teacher and the School Curriculum	3	
Ed 109	Assessment in Learning 2	3	



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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/Specialization Courses		63 units
MEd 111	History of Mathematics	3	
MEd 112	College and Advanced Algebra	3	
MEd 121	Trigonometry	3	
MEd 122	Plane & Solid Geometry	3	
MEd 123	Logic & Set Theory	3	
MEd 211	Modern Geometry	3	
MEd 212	Calculus I with Analytical Geometry	4	
MEd 213	Elementary Statistics & Probability	3	
MEd 221	Calculus 2	4	
MEd 222	Linear Algebra	3	
MEd 311	Calculus 3	3	
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	4	
MEd 321	Technology Application in Mathematics Teaching	3	
MEd 322	Assessment & Evaluation in Mathematics	3	
MEd 323	Mathematics of Investment	3	
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	
PATHFit 1	Movement Competency Training	2	
PATHFit 2	Exercise-Based Fitness Activity	2	
PATHFit 3	Menu of Courses in Sports, Dance, Martial Arts, Group Exercise, Outdoor and Adventure Activities Menu Offering Traditional and Recreational Games	2	
PATHFit 4	Menu of Courses in Sports, Dance, Martial Arts, Group Exercise, Outdoor and Adventure Activities Menu Offering Team Sports (Basketball and Volleyball)	2	
	E. Institutional Prerogative Courses		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 Courses	42
Professional Education Courses	42
Specialization	63
Elective/Cognates	-
Mandated	14
Institutional Prerogative	13
TOTAL	174

PROGRAM OF STUDY

FIRST YEAR					
FIRST SEMESTER					
CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
NSTP 111	National Service Training Program 1	3	3	-	-
PATHFit 1	Movement Competency Training	2	2	-	-
GEd 101	Understanding the Self	3	3	-	-
GEd 102	Mathematics in the Modern World	3	3	-	-
GEd 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 and Advanced Algebra	3	3	-	-
TOTAL		26	26	-	

FIRST YEAR					
SECOND SEMESTER					
CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
NSTP 121	National Service Training Program 2	3	3	-	NSTP 111
PATHFit 2	Exercise-Based Fitness Activity	2	2	-	PATHFit 1
GEd 104	The Contemporary World	3	3	-	-
GEd 105	Readings in Philippine History	3	3	-	-
GEd 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	-	

SECOND YEAR					
FIRST SEMESTER					
CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
PATHFit 3	Menu of Courses in Sports, Dance, Martial Arts, Group Exercise, Outdoor and Adventure Activities Menu Offering Traditional and Recreational Games	2	2	-	PATHFit 1 and 2



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GEd 107	Ethics	3	3	-	-
GEd 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
MEd 211	Modern Geometry	3	3	-	MEd 122,123
MEd 212	Calculus I with Analytical Geometry	4	4	-	MEd 112,121,122
MEd 213	Elementary Statistics & Probability	3	3	-	-
TOTAL		27	27	-	

SECOND YEAR

SECOND SEMESTER

CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
PATHFit 4	Menu of Courses in Sports, Dance, Martial Arts, Group Exercise, Outdoor and Adventure Activities Menu Offering Team Sports (Basketball and Volleyball)	2	2	-	PATHFit 1 and 2
GEd 109	Science, Technology and the Society	3	3	-	-
Fili 102	Filipino sa Iba't Ibang Disiplina	3	3	-	-
Ed 106	Foundation on 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	-	

THIRD YEAR

FIRST SEMESTER

CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
Fili 103	Retorika – Masining na Pagpapahayag	3	3	-	Fili 101,102
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 112,122,123
MEd 315	Research in Mathematics 1	4	4	-	MEd 312*
TOTAL		25	25	-	



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THIRD YEAR					
SECOND SEMESTER					
CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
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 112,123
MEd 326	Differential Equation	3	3	-	MEd 311
MEd 327	Research in Mathematics 2	1	1	-	MEd 315
TOTAL		22	22	-	

FOURTH YEAR					
FIRST SEMESTER					
CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
Ed 111	Field Study 1	3	3	-	Ed 101 to 110 All MEd Courses
Ed 112	Field Study 2	3	3	-	Ed 101 to 110 All MEd Courses
Ed 113	Management of Students' Behavior and Wellness	3	3	-	-
Ed 114	Special Topics in Education	3	3	-	-
TOTAL		12	12	-	

FOURTH YEAR					
SECOND SEMESTER					
CODE	COURSE TITLE	Units	Lec	Lab	Prerequisite
Ed 115	Teaching Internship	6	6	-	Ed 111, 112
Ed 116	Comprehensive Examination	3	3	-	All Academic Courses
TOTAL		9	9	-	

**Corequisite course*