



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

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 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 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; and
5. 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.

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	Readings in Philippine History	3	
GEd 106	Purposive Communication	3	
GEd 107	Ethics	3	
GEd 108	Art Appreciation	3	
GEd 109	Science, Technology and 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 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	3	
MEd 112	College and Advanced Algebra	3	
MEd 121	Trigonometry	3	
MEd 122	Plane and Solid Geometry	3	
MEd 123	Logic and Set Theory	3	
MEd 211	Modern Geometry	3	
MEd 212	Calculus 1 with Analytical Geometry	4	
MEd 213	Elementary Statistics and 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 and Strategies in Teaching Mathematics	3	
MEd 314	Problem Solving, Mathematical Investigation and Modeling	3	
MEd 315	Research in Mathematics 1	4	
MEd 321	Technology Application in Mathematics Teaching	3	
MEd 322	Assessment and 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	
PE 101	Physical Fitness, Gymnastics and Aerobics	2	
PE 102	Rhythmic Activities	2	
Code	Courses	Units	Total

PE 103	Individual and Dual Sports	2	
PE 104	Team Sports	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
General Education	42
Professional Education	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	-	-
PE 101	Physical Fitness, Gymnastics and Aerobics	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	-	

Second Semester					
Code	Course Title	Units	Lec	Lab	Prerequisite
NSTP 121	National Service Training Program 2	3	3	-	NSTP 111
PE 102	Rhythmic Activities	2	2	-	PE 101
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 and Solid Geometry	3	3	-	MEd 112
MEd 123	Logic and Set Theory	3	3	-	-
	TOTAL	29	29	-	

SECOND YEAR					
First Semester					
Code	Course Title	Units	Lec	Lab	Prerequisite
PE 103	Individual and Dual Sports	2	2	-	PE 101
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, MEd 123
MEd 212	Calculus 1 with Analytical Geometry	4	4	-	MEd 112, MEd 121, MEd 122
MEd 213	Elementary Statistics and Probability	3	3	-	-
TOTAL		27	27	-	

Second Semester					
Code	Course Title	Units	Lec	Lab	Prerequisite
PE 104	Team Sports	2	2	-	PE 101
GEd 109	Science, Technology and 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	-	

THIRD YEAR					
First Semester					
Code	Course Title	Units	Lec	Lab	Prerequisite
Fili 103	Retorika – Masining 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 and Strategies in Teaching Mathematics	3	3	-	Ed 105
MEd 314	Problem Solving, Mathematical Investigation and Modeling	3	3	-	MEd 112, MEd 122, MEd 123
MEd 315	Research in Mathematics 1	4	4	-	MEd 312*
TOTAL		25	25	-	

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 and 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	-	

FOURTH YEAR					
First Semester					
Code	Course Title	Units	Lec	Lab	Prerequisite
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, All MEd courses
Ed 113	Management of Students' Behavior and Wellness	3	3	-	-
Ed 114	Special Topics in Education	3	3	-	-
TOTAL		12	12	-	

Second Semester					
Code	Course Title	Units	Lec	Lab	Prerequisite
Ed 115	Teaching Internship	6	6	-	Ed 111, Ed 112
Ed 116	Comprehensive Examination	3	3	-	All Academic Courses
TOTAL		9	9	-	

*Corequisite Course