



CURRICULUM
Master of Arts in Education major in Science Teaching
 Academic Year 2018-2019
 Reference CMO: CMO No. 53, s. 2007

Curriculum Description

Thesis programs in education aim to develop the competencies of classroom teachers and other education professionals to undertake research in specific areas within the broad field of educational science and practice. Such programs shall focus on replication, verification, validation, contextualization, and/or application of theoretical knowledge about the different aspects of the educational process.

Program Objectives

The Master of Arts in Education major in Science Teaching (MAEd-ST) aims to produce educators who:

1. demonstrate competencies in science to facilitate the successful pursuit of an advanced level of proficiency in science education
2. show competence in educational pedagogy and adapt with the innovations in science instruction and knowledge generation.
3. provide technical and expert leadership and/or assistance in the conduct of socio-civic activities in the community.
4. keep track of latest trends in the field of specialization and adopt creative and innovative solutions to science teaching and testing through research and advanced studies.

Program Outcomes

Graduates of the MAEd-ST program are expected to:

1. utilize higher order skills and various methods of research in the analysis, critical assessment, and application and communication of knowledge in science to everyday instruction and in the provision of meaningful learning experiences;
2. show advanced proficiency and dedication in the delivery of instruction, using a complex and coherent body of knowledge and skills in science education;
3. demonstrate creativity and flexibility in applying knowledge and skills to new situations, and solve complex problems in the field through rigorous thinking and independent work;
4. apply existing knowledge and utilize proper contexts in addressing various issues that concern the teaching and learning of the various branches of science;
5. manifest a comprehensive understanding of the methods of inquiry in their own research or advanced scholarship, and use these methods to create and interpret knowledge in the field; and
6. continue to advance knowledge and skills in the field using the established sources of advanced information.

Curriculum Components

Code	Course Description	Units	Total
A. Basic Courses			12 units
Scie 500	Seminar in Basic Science Courses (<i>no credit</i>)	3	
Educ 501	Research Methodology	3	
Educ 502	Education Measurements and Statistics	3	
Educ505	History and Philosophy of Science Education	3	
Educ506	Principles, Issues and Practices in Science Teaching	3	
B. Major Courses			18 units
Scie 501	Earth Science and Environment Education	3	
Scie 502	Botany	3	

Code	Course Description	Units	Total
Scie 503	Zoology	3	
Scie 504	Inorganic Chemistry	3	
Scie 505	Organic Chemistry	3	
Scie 506	Mechanics and Heat	3	
	C. Electives choose only two (2)		6 units
Scie 507	Biological Techniques	3	
Scie 508	Biochemistry	3	
Scie 509	Analytical Chemistry	3	
Scie 510	Thermodynamics	3	
Scie 511	Nuclear Physics	3	
Scie 512	Waves, Electricity and Magnetism	3	
	D. Thesis Writing		6 units
THESIS I	Thesis Writing I (Proposal Defense)	3	
THESIS II	Thesis Writing II (Final Defense)	3	

SUMMARY	
Courses	Number of Units
Basic Courses	12
Major Courses	18
Electives	6
Thesis Writing	6
TOTAL	42

ADMISSION POLICIES

- Automatic admission of an applicant with bachelor's degree in education major in Science and graduate of Science courses with at least 18 units in education.
- Non-Science major applicant will be required to take the following courses (9 units) before taking the major courses.

Course Code	Course Description	No. of Units
Scie 498	History and Philosophy of Science Education	3 units
Scie 499	Earth Science and Environment Education	3 units
Scie 500	Seminar in Basic Science Courses	3 units

- For non-education graduate the following courses (9 units) should be completed before enrolment in the basic course.

Course Code	Course Description	No. of Units
Educ 500	The Teaching Profession	3 units
Educ 509	Psychology of Teaching and Learning	3 units
Educ 510	Curriculum Development and Academic Planning	3 units