

DOCTOR OF PHILOSOPHY IN SCIENCE EDUCATION

84 credit hours (minimum 51 credit hours of coursework)

Qualifying exam within the first two years of Ph.D. study:

- Composed of five position statements (ranked by faculty)
- Top three ranked must be defended orally and in writing

Oral comprehensive exam with the student's graduate committee (the dissertation proposal is presented orally as part of the comprehensive examination)

Oral dissertation defense, involving the final thesis exam

The objective of the Ph.D. program is to provide students with advanced education in the teaching and learning of science. These advanced studies will enable graduates to conduct theoretical and practical research in science education; develop and evaluate curriculum; prepare future teachers; provide professional development to in-service teachers; or become a leader in public school education at the state or local levels.

Curriculum

Required Courses		(30)
MSED 545	Statistics for Educators I	3
MSED 546	Statistics for Educators II	3
MSED 550	Clinical Supervision in Science/Mathematics	3
MSED 552	Assessment and Evaluation	3
MSED 554	Middle and Secondary Level Science Curriculum	3
MSED 580	Adolescent Psychology	3
MSED 601	Critical Analysis in Quantitative Research	3
MSED 602	Quantitative Research Design and Practicum	3
MSED 603	Critical Analysis in Qualitative Research	3
MSED 604	Qualitative Research Design and Practicum	3
Electives		(29)
Select a minimum of 9 credit hours from the following:		9
MSED 502	Advanced Strategies: Science	3
MSED 530	Teacher Education/Professional Development in Science	3
MSED 538	Inquiry and Problem Solving	3
MSED 540	Informal Education Practicum	3
MSED 562	Action Research I	1-3
MSED 570	Inquiry and Nature of Science	3
MSED 594	Special Projects	1-6
MSED 597	Special Problems	1-9
Up to 8 credit hours from discipline-specific graduate coursework		8
12 credit hours of select coursework from discipline-specific science courses/related fields		12
Ph.D. Research		(25)
MSED 691	Ph.D. Thesis Research (minimum 25 credit hours)	25
Total Credit Hours		84

42 maximum transfer of graduate credit hours from master's (24 credit hours from coursework/8 credit hours from research)