# **Curriculum and Instruction: Doctor's Program(040102)**

(学术型博士,4年制)

## 1. Training method

After the postgraduate enrollment, the tutor selects two assistant tutors who can play an academic support role according to the academic interest and willingness of the postgraduate. The tutor bears the main responsibility. In addition to the academic support of the deputy supervisor, the deputy supervisor has the independent voting right when major questions such as whether the graduate student has entered the doctoral dissertation stage or whether the dissertation can be answered.

Actively promote the joint training of graduate students with internationally renowned scholars or academic units.

## 2.Length

The general length of this program is 4 years (6 years maximum).

#### 3. Foci of research

- 1. Chinese course and teaching
- 2. Mathematics Curriculum and Teaching
- 3. Curriculum and Teaching
- 4. History of Mathematics and Mathematics Education
- 5. Learning scientific research
- 6. Science education
- 7. Professional Development of Science Teachers
- 8. Development and Evaluation of Chemistry Courses
- 9. Scientific Capability Development and Evaluation
- 10. Physics Curriculum and Teaching
- 11. Biology course and teaching

## 4. Credit requirements and curriculum

## (1) Credit requirements

Doctoral courses include common courses, Elementary courses, Specialized Courses, interdisciplinary elective courses. Doctoral students need to complete at least 15 credits. Public elective courses are not subject to study requirements (credits are not included in the 15 credits).

# (2) curriculum

Curriculum	Foci of	Name	Credit	Semester
category	research	T (MILLE)	Creare	Semester
Common Courses	all	Chinese Marxism and Contemporary	2	1 <sup>st</sup>

(compulsory)		World		1,10,0,1
		Foreign Language	4	1st&2nd
Elementary courses (compulsory)	all	Design of Research in Education	3	1 <sup>st</sup>
Specialized Courses (compulsory)	all	The theory of the Curriculum & Instruction	3	1 <sup>st</sup>
	all	Thesis Writing	1	2 <sup>nd</sup>
Specialized Courses (optional)	Chinese	Cultural Studies on Chinese Language Curriculum	2	1 <sup>st</sup>
		History and Pedagogy of Chinese	2	2 <sup>nd</sup>
	Maths	Research Methods in Mathematics Education	2	2 <sup>nd</sup>
		Special Topics in Mathematics Education	2	2 <sup>nd</sup>
		History & Pedagogy of Mathematics	2	1 <sup>st</sup>
		Research on Mathematics Curriculum and Instruction	2	3 <sup>rd</sup>
	Physics	Monographic Study on Theory of Physics Curriculum	3	1 <sup>st</sup>
		Monographic Study on Physics Experiment Instruction	3	2 <sup>nd</sup>
		Monographic Study on Physics Instructional Theory	3	3 <sup>rd</sup>
	Chemistry	Introduction to Research in Science Education	3	1 <sup>st</sup>
		Practice Research in Excellent Chemistry Teaching	2	1 <sup>st</sup>
		Chemistry Educational Psychology	3	2 <sup>nd</sup>
	Biology	Biology Curriculum and Teaching Practice Research	2	1 <sup>st</sup>
		Frontiers in Life Science and Biology Education	2	2 <sup>nd</sup>
	Learning scientific	Frontier Research on the Learning Sciences	3	2 <sup>nd</sup>

		Research & Development of Instructional Design	2	3 <sup>rd</sup>
Science education	Evolution of Epistemology and Reform of Science Education	2	2 <sup>nd</sup>	
		Research on Science Education	2	3 <sup>rd</sup>
interdisciplinary elective courses	all	Educational psychology	2	2 <sup>nd</sup>