Master of Education Program in Science and Technology Education

Institute of Teacher Education, Faculty of Education, ECNU

（Professional Master Degree, 2 years）

Program Overview

The M. Ed. in Science and Technology Education is a two-year degree program with the maximum duration no longer than 5 years. Students are required to finish at least 37 credits of course work and a thesis to obtain the M. Ed. degree. The average annual tuition is ten thousand Yuan per year. During their study, students will be assigned two advisors—one from Institute of Teacher Education and the other from a middle or high school.

Program Objectives

Students earning the M. Ed. degree in Science and Technology Education should

▪ establish a solid knowledge foundation in the area of Science and Technology Education as well as rich teaching knowledge, and know about the disciplinary culture as well as the frontier of the subject;

▪ develop strong practical abilities that can quantify them for the future teaching job;

▪ develop the ability of discovering, analyzing, and solving problems in their teaching, and the awareness of the importance of lifelong learning and continuous professional development;

▪ develop the ability to conduct educational research in the area of Science and Technology Education to improve teaching and facilitate professional development;

▪ understand the status quo and the trends and issues in the areas of Science and Technology Education, curriculum studies, and educational reform.

Credit and Course Requirements

The courses consist of public courses (5 credits), foundation courses (8 credits), core courses (10 credits), elective courses (6 credits) and teaching and research practice (8 credits). The following are the courses and corresponding credits:

Public courses (5 credits)

1. Public English (2 credits) semester 2
2. Theory and Practice of Socialism with Chinese Characteristics (2 credits) semester 1
3. Marxism and Methodology of Social Science (1 credit) semester 1

Foundation courses (8 credits)

1. Principles of Education Science (2 credits) semester 1
2. Curriculum and Instruction (2 credits) semester 2
3. Research Methodology in Education (2 credits) semester 1
4. Psychological Development and Education (2 credits) semester 2

Core courses (10 credits)

1. Research on Science curriculum and material (2 credits) semester 1
2. Design and Implementation for Science Teaching (2 credits) semester 2
3. Introduction to history and philosophy of science (2 credits) semester 2
4. Research design of science and technology education and communication (2 credits) semester 2
5. Science and Technology Communication (2 credits) semester 2

Elective courses *(6 credits)

1. Research Frontier of Subject Education *(2 credits) semester2
2. Lectures on Sciences and Humanities* (2 credits) semester 1
3. Frontier of Science Education and Communication (2 credits) semester 1
4. STEM Education & Practice (2 credits) semester 2
5. Information Technology and Science Education (2 credits) semester 1
6. Moral Education in Subject Teaching and Classroom Management (1 credit) semester 1

Teaching and Research Practice (8 credits)

1. In the form of professional practice. The practice is arranged in the first, second and third semesters: 1 credit for study in the first semester, 3 credits for internship in the second semester, and 4 credits for internship in the third semester. Adopted centralized professional practice, that is, graduate students will enter science and technology education and science communication professional scenes (such as primary and secondary schools, science and technology venues, youth science and technology activity centers, etc.) to carry out teaching, project design and management, social surveys, and topic research of Scientific and technological education and communication practice activities; students will pay close attention to the close integration of professional practice and professional learning, and hold

regular seminars and practical observations.

2. Professional Practice Assessment. Through the teaching demonstration shows , graduate students would have mastered the methods and skills of science and technology education and communication, and had the ability to independently engage in the design, creation, and practice of science and technology education and communication activities. The practice results are given by the instructor of the practice unit.