

EMI Masters Courses

Required Curriculum

Course Code	Course Title	Level	Credit	Course Area
SEM0036	Seminar on Cognitive Psychology and Digital Learning in Science Education	M	2	Seminar
SEM0037	Seminar on Science Curriculum and Social Issues	M	2	Seminar
SEC8001	Colloquium (I) (Repeated selection allowed)	M/PhD	2	Colloquium
SEC8002	Colloquium (II) (Repeated selection allowed)	M/PhD	2	Colloquium

Elective Curriculum

Course Code	Course Title	Level	Credit	Course Area
SEC0063	Introduction to the Nature of Science	M/ PhD	3	Science and Society
SEC0065	Philosophy of Science and Science Education	M/ PhD	3	Science and Society
SEC0068	The Philosophy of Biology	M/ PhD	3	Science and Society
SEC8004	Studies in Science , Technology and Society	M/ PhD	3	Science and Society
SEC8007	Sociology of Knowledge and Science Education	M/ PhD	3	Science and Society
SEC8008	The Philosophy of Science	M/ PhD	3	Science and Society
SEC0006	Cognitive Psychology and Science Learning	M/ PhD	3	Cognitive and Science Learning
SEC0008	Psychology of Science Learning	M/ PhD	3	Cognitive and Science Learning
SEC0009	Psychology of Mathematics Learning	M/ PhD	3	Cognitive and Science Learning
SEC0011	Studies in Science Problem Solving	M/ PhD	3	Cognitive and Science Learning
SEC0012	Studies in Mathematics Problem Solving	M/ PhD	3	Cognitive and Science Learning
SEC0013	Conceptual Development and Reasoning Ability	M/ PhD	3	Cognitive and Science Learning
SEC0043	Studies in Mathematics Education	M/ PhD	3	Cognitive and Science Learning

SEC0052	Social Constructivism and Science Education	M/ PhD	3	Cognitive and Science Learning
SEC0060	Theories and Practice of Conceptual Change in Science	M/ PhD	3	Cognitive and Science Learning
SEC0066	Topics in Science Learning	M/ PhD	3	Cognitive and Science Learning
SEC0070	Cognitive Models and Modeling	M/ PhD	3	Cognitive and Science Learning
SEC0086	Topics on the Development of Scientific Reasoning	M/ PhD	3	Cognitive and Science Learning
SEC8005	Tracking the Cognitive Processes of Science Learning	M/ PhD	3	Cognitive and Science Learning
SEC8009	Conception and reasoning in science practices	M/ PhD	3	Cognitive and Science Learning
SEC0019	Analysis of Science Instructional Activities	M/ PhD	3	Curriculum, Instruction and Assessment
SEC0022	Development and Design of Science Curriculum	M/ PhD	3	Curriculum, Instruction and Assessment
SEC0055	Science Texts Analysis	M/ PhD	3	Curriculum, Instruction and Assessment
SEC0074	Evaluation of Science Learning	M/ PhD	3	Curriculum, Instruction and Assessment
SEC0075	Evaluation of Mathematics Learning	M/ PhD	3	Curriculum, Instruction and Assessment
SEC0077	Studies in Mathematics Curriculum	M/ PhD	3	Curriculum, Instruction and Assessment
SEC0078	Theory and Practice of Science Teacher Research	M/ PhD	3	Curriculum, Instruction and Assessment
SEC8003	The Language of Science	M/ PhD	3	Curriculum, Instruction and Assessment
SEC8006	International Comparative Studies in Science Education	M/ PhD	3	Curriculum, Instruction and Assessment
SEC8010	Topics in Science Curriculum and Instruction	M/ PhD	3	Curriculum, Instruction and Assessment
SEC0051	Educational Technology in Science Education	M/ PhD	3	Digital Learning
SEC0053	Theory and Research of Learning Technological Tools in Science Education	M/ PhD	3	Digital Learning
SEC0054	Design of Technology-infused Science Curriculum	M/ PhD	3	Digital Learning

SEC0082	Online Game and Virtual World Learning	M/ PhD	3	Digital Learning
SEM0017	Elementary Statistics	M	3	Research Method
SEC0036	Research Methodology of Science Education	M/ PhD	3	Research Method
SEC0037	Theories of Testing	M/ PhD	3	Research Method
SEC0038	Qualitative Research	M/ PhD	3	Research Method
SEC0039	Data Analysis(I)	M/ PhD	3	Research Method
SEC0040	Data Analysis (II)	M/ PhD	3	Research Method
SEC0050	Special Topics on Research in Methodology : Methods for Studying Learning Technologies	M/ PhD	3	Research Method
SEC8011	Introduction to Structural Equation Modeling	M/ PhD	3	Research Method
SEC8012	Academic Writing in Science Education	M/ PhD	3	Research Method