

# Graduate Institute of Mathematics & Science Education National Chiayi University Taiwan



## Introduction

Graduate Institute of Mathematics & Science Education (GIMSE) is the only academic institute in the area of Yunlin, Chiayi & Tainan in Taiwan to provide the programs for training students and teachers in mathematics and science education. The major objectives of the institute are to cultivate teachers and researchers who will attempt to serve at both formal and informal educational institutions. The programs include research methods, curriculum design and development, teaching strategies, assessment techniques, and history and philosophy of mathematics or of science.



## Requirements

Students in Master's programs of GIMSE are required to complete 34 credits, in addition to 6 thesis credits. The core courses include methodology, mathematics and science education, and foundations for mathematics, science, and computer science.







## Faculty Members & Research Focuses

There are four professors and three associate professors in GIMSE. All faculties have their research interests, focusing on concept development, curriculum and instruction, student learning, assessment, professional development of mathematics or science teachers, digital learning and multimedia design.

### Professor Ru-Fen Yao (Convener)



<b>Educational Background</b>	Ph.D., National Chang-Hua University of Education, Taiwan
<b>Research Interest</b>	Mathematics education, Mathematics teacher education, Math learning of disadvantaged students
<b>Course</b>	Qualitative Research, Abstract Algebra, The Study of Math Teaching Design, The Study of Math Teaching Practice, Multiculture and Math Education

### Professor Shiang-Tung Liu



<b>Educational Background</b>	Ph.D., University of Memphis, USA.
<b>Research Interest</b>	Mathematics concept development, Mathematics problem solving, Mathematics Writing, Advanced Probability, The Study of Mathematics Concepts Development, Constructivism and Mathematics Learning, Mathematics Learning Psychology
<b>Course</b>	

### Professor Der-Ching Yang



<b>Educational Background</b>	Ph.D., University of Missouri - Columbia, USA
<b>Research Interest</b>	Mathematics Education, The Study of Mathematics Curriculum Development, History of Mathematics and Mathematics Education, Literature Review in Mathematics Education
<b>Course</b>	

### Professor Shu-Sheng Lin



<b>Educational Background</b>	Ph.D., National Taiwan Normal University, Taiwan
<b>Research Interest</b>	Science curriculum and instruction, Teaching and learning of so-called scientific issue, Professional development for science teachers
<b>Course</b>	Research Methods in Education, History of Science and Science Education, Special Topics in Biology, Cognitive Psychology and Science Education

### Associate Professor Shuh-Wang Tsai



<b>Educational Background</b>	Ph.D., The University of Iowa, USA
<b>Research Interest</b>	Science Education, Introduction of Science Education Research, Advanced Educational Statistics, Learning and Assessment in Science, Special Topics in Chemistry, Quantitative Data Analysis
<b>Course</b>	

### Associate Professor Jun-Yi Chen



<b>Educational Background</b>	Ph.D., National Changhua University of Education, Taiwan
<b>Research Interest</b>	Professional development of science teachers, Science teaching and learning, Special Topics in Physics, Science Learning Psychology, Social Psychology and Science Learning, The Design and Application of Science Teaching Aids
<b>Course</b>	

### Associate Professor Chih-Hung Lin

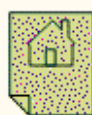


<b>Educational Background</b>	Ph.D., National Sun Yat-sen University, Taiwan
<b>Research Interest</b>	Digital Issue Processing, Digital Watermarking Data Hiding, Information Security, Multimedia Interactive Design and Application, Special Issues Analysis and Application, Special Topics in Information Science, Multimedia Design and Development Application of Distance Learning in Mathematics Education
<b>Course</b>	



## Qualifications and Career Development

Welcome anyone who has Bachelor degree on Mathematics or Science to apply for Master program in GIMSE. After receiving the master degree, students will be able to further pursue a Ph.D. degree or become a mathematics or science teacher, or one of research members at either a formal or informal educational institution.



Website : [http://www.ncyu.edu.tw/gimse\\_eng/](http://www.ncyu.edu.tw/gimse_eng/)

