TQF.3 Course Specification

Course Code :   ETH 5102

Course Title: Thesis 2

Credits: 3 Credits

Semester /Academic Year :   1/2019

Students :   Master of Education Program in Mathematics Education

Lecturers :   Asst.Prof.Dr. Supotch Chaiyasang
Assoc.Prof.Chaweewan Kaewsaiha
Dr.Kanokrat Kunasaraphan

International College, SuanSunandhaRajabhat University

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Section 1 General Information

1. **Code and Course Title:** ETH 5102Thesis 2
2. **Credits:**   3 Credits

3. **Curriculum and Course Category:**

    This course of Master of Education ,International College, SSRU is categorized in ***Thesis.***

4. **Lecturers:**   Asst.Prof.Dr. Supotch Chaiyasang
                        Assoc.Prof.Chaweewan Kaewsaiha
                        Dr.Kanokrat Kunasaraphan

5. Year / Semester

    Graduate Student Year 2 / Semester 1/2019

6. Prerequisite Course

    ETH5101 Thesis 1

7. Co-requisite Course :

     None

8. Learning Location

SrijuthapaBuilding Number**:** 21
            Wednesday   9.00 – 16.00   Room No. 2122

9. Last Date for Preparing and Revising this Course:

    January10, 2019

Section 2 Objectives and Purposes

1. Course Objectives

At the end of this course, the student will be able to perform in the following areas of performance:

(1) Able to compile courses to formulate a learning plan for teaching mathematics;

(2) Able to develop an action research using innovation or technology to solve mathematics classroom problems.

(3) Able to organize activities that promote learning and classify the learners' levels based on their performances; and

(4) Able to manage learning resources and classroom environment for educational quality and standards.

2. Purposes for Developing / Revising Course (content / learning process / assessment / etc.)

According to TQF (Thailand Quality Framework: HEd.) and the Teachers' Council of Thailand with the standards of professional knowledge and experience for requirement courses, graduate students program in mathematics education should have essence of knowledge and skills to promote learners' achievement.

Section 3 Course Structure

1. Course Outline

Submit thesis proposal under the supervision of advisors; defense of thesis outline; complete research tools, data collection, data analysis and draft thesis; presentation on data analysis to thesis committee. Submit thesis proposal under the supervision of advisors; defense of thesis outline; complete research tools, data collection, data analysis and draft thesis; presentation on data analysis to thesis committee.

2. Time Length per Semester (Lecture – hours / Practice – hours/ Self Study – hours)

Lecture	Practice/ Field Work/Internship	Self Study	Remedial Class
48 hours	-	96 hours	3+ (if any)

3. Time Length per Week for Individual Academic Consulting and Guidance

At least 3 hours / week

Section 4 Developing Student's Learning Outcomes

Learning Standards/Outcomes	Learning Activities	Learning Assessment
1. Ethics and Morals To have ethical behavior (personal responsibility, corporate responsibility) and moral reasoning; including citation in thesis	-Work individually to discuss with thesis advisor.	Oral presentation
2. Knowledge (1) Be able to compile courses to formulate a learning plan for teaching mathematics. (2) Be able to design a learning model appropriate to the learning outcomes; (3) Be able to select, develop and produce innovation and technology that promote learning.	1. Introduce the components of thesis according to guideline in Handbook of Graduate School (SSRU). 2. Have the students develop their plans to write the thesis.	1. Draft of The Thesis 2. Presentation on data analysis and draft thesis to thesis committee

Learning Standards/Outcomes	Learning Activities	Learning Assessment
3. Cognitive Skills (1) Be able to organize activities that promote learning according to research objectives. (2) Able to manage learning resources and classroom environment for mathematics learning area standards as shown in research methodology and finding.	1. Use research-based learning and internet-based learning to construct cognitive skills in writing the thesis report. 2. Discussion and presentation of research findings – students write reports, and other forms of work documentation to include in their Thesis draft or oral presentation their findings from discussion / searching information.	1. Individual draft thesis (at least three chapters) 2. Presentation on data analysis and draft thesis to thesis committee
4. Interpersonal Skills and Responsibilities (1) Have responsibility for doing action research. (2) Can adjust to work with the thesis advisor and expert.	1. Use research-based learning and internet-based learning for doing action research. 2. Students prepare abstract and full paper for submission to international conference.	1. Abstract 2. Full paper
5. Numerical Analysis, Communication and Information Technology Skills		

Learning Standards/Outcomes	Learning Activities	Learning Assessment
(1) Have statistical and mathematical skills to present research finding on learning. (2) Can use correct language in oral and written presentations. (3) Can use computer and IT to follow the progress management in writing the thesis.	1. Use research-based learning and internet-based learning to analyze data and interpret data for research objectives. 2. Students use mathematics program in computer to design and develop The Thesis writing.	1. Individual draft thesis 2. Statistical formula in analyzing data
6. Learning Management Skills (1) Be able to design learning activities and learning environments within the context of a unit of mathematics for quality of research instruments. (2) Be able to develop the learners with essential opportunities to enhance learning concepts and motivate active engagement in mathematical process for problem solving.	. Use techniques for learning management skills: integration of contents for learner-oriented learning management as shown in research methodology. Discussion and presentation of learning and teaching theories and research on the learning of mathematics, development of mathematical thinking and knowledge in school and other settings.	1. Individual Thesis draft 2. Presentation on data analysis and draft thesis to thesis committee

Section 5 Lesson Plan and Assessment

Under the supervision of advisors.

1.Lesson Plan

Week	Topic/Outline	Hours	Learning Activities and Medias
1-2	• Feedback and evaluation of Chapter 1 Introduction in writing the thesis.	6	• Students discussion with the thesis advisor
3-5	• Feedback and evaluation of Chapter 2 Review of Literature– texts, academic papers, and/or research	9	• Students discussion with the thesis advisor • *Integrating research titled "Comparing Mathematics Education Students' Learning and Attitudes between Pedagogy Content Knowledge and Practicing in Schools"*
6-10	• Feedback and evaluation of Chapter 3 Research methodology related to research questions and objectives	15	• Students discussion with the thesis advisor • Students submit Thesis draft (Chapter 1 to Chapter 3) to the Thesis advisor • Presentation on data analysis and draft thesis to thesis committee
11-17	• Feedback and evaluation of Chapter 4 Research results, abstract, and full paper for submission to international conference	21	• Students discussion with the thesis advisor • Students submit Thesis draft (Chapter 1 to Chapter 4), abstract, full paper to the thesis advisor and thesis committee • Defense of thesis outline

2. Learning Assessment Plan

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
1. Ethics and Morals To have ethic behavior (personal responsibility, corporate responsibility) and moral reasoning.	1. Individual thesis discussion with advisor	Throughout semester	5 %
2. Knowledge (1) To compile courses to formulate a learning plan for teaching mathematics. (2) To design a learning model appropriate to research objectives. (3) To select, develop and produce media and instrument that promote learning	1. Individual thesis discussion with the advisor	Throughout semester	40 %
3. Cognitive Skills (1) Be able to organize activities that promote learning according to research objectives. (2) Able to manage learning resources and classroom environment for mathematics learning area standards as	1. Individual thesis discussion with the advisor	Throughout semester	30 %

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
shown in research methodology and finding.			
4. Interpersonal Skills and Responsibilities (1) Have responsibility for doing action research. (2) Can adjust to work with the thesis advisor and expert.	1. Individual thesis discussion with the advisor	Throughout semester	5 %
5. Numerical Analysis, Communication and Information Technology Skills (1) Have statistical and mathematical skills to present research finding on learning. (2) Can use correct language in oral and written presentations. (3) Can use computer and IT to follow the progress management in writing the thesis.	1. Individual thesis discussion with the advisor	Throughout semester	10 %

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
6. Learning Management Skills (1) Be able to design learning activities and learning environments within the context of a unit of mathematics for quality of research instruments. (2) Be able to develop the learners with essential opportunities to enhance learning concepts and motivate active engagement in mathematical process for problem solving.	1. Individual thesis discussion with the advisor presentation	Throughout semester	10 %

Section 6 Learning and Teaching Resources

1. Textbook and Main Documents

Stringer, E.T.(2007). *Action Research (Third Edition).*London: SAGE
    Publication.

2. Important Documents for Extra Study

American Psychological Association.(2010). Publication Manual of the America Psychological Association (6th edition). Washington, DC: American Psychological Association.

3. Suggestion Information (Printing Materials/Website/CD/Others)

Website:

http://atcm.mathandtech.org

CD:

Graduate School SuanSunandhaRajabhat University.(2018). *Orientation for Graduate Students : Academic Year 2018.*

Fowler H.R., Aaron, J. E., & Okoomian J. (2012). How to write a thesis statement.   Retrieved January 5, 2013 from http://www.awl.com/littlebrown.

Section 7 Course Evaluation and Revising

1. Strategies for Course Evaluation by Students

Using survey questions to collect information from the students' opinions to improve the course and enhance the curriculum. Examples of questions:

(1) Content objectives were made clear to the students.

(2) The content was organized around the objectives.

(3) Content was sufficiently integrated.

(4) Content was sufficiently integrated with the rest of the first year curriculum.

(5) The instructional materials used were effectively.

(6) The learning methods appropriate assessed the students' understanding of the content.

(7) Overall, Students are satisfied with the quality of this course.

2. Strategies for Course Evaluation by Lecturer

2.1 Responsible Curriculum team discusses the results as follow:

(1) The thesis advisor is well prepared for giving the feedback and evaluation.

(2) The thesis advisor answers questions carefully and completely.

(3) The thesis advisor uses examples to make the materials easy to understand.

(4) The thesis advisor stimulated interest in the course.

(5) The thesis advisor is knowledgeable about the topics presented in student's Thesis.

(6) The thesis advisor treats students respectfully.

(7) The thesis advisor is fair in dealing with students.

(8) The thesis advisor makes students feel comfortable about asking question.

2.2 The Director /Head of program construct assessment items to evaluate three dimensions of lecturer's competencies : content knowledge, procedural knowledge, and attitudes.

3. Teaching Revision

Responsible Curriculum team revises teaching/learning process based on the results from the students' survey questions, and classroom research.

4. Feedback for Achievement Standards

International College Administrator Committee monitor to assessment process and Grading.

5. Methodology and Planning for Course Review and Improvement

(1) Revise and develop course structure and process every two years.

(2) Assign different lecturers teach this course to enhance students' performance.