



TQF.3

Bachelor's Degree

Master's Degree

Course Specification

Course Code : MTP5107

Course Title : Learning Management, Learning Resource, and
Quality Assurance for Mathematics Education

Credits : 3(3-0-6)

Program : Master of Arts Program in Mathematics Education
(International Program)

International College
Suan Sunandha Rajabhat University
(SSRUIC)

Semester : 2

Academic Year : 2017

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Section 1 General Information

1. Code and Course Title :

Course Code: MTP5107

Course Title (English): Learning Management, Learning Resource,
and Quality Assurance for Mathematics
Education

2. Credits: 3(3-0-6)

3. Curriculum and Course Category:

3.1 Curriculum: Master of Arts Program in Mathematics Education

3.2 Course Category:

General Education

Required Course

Elective Course

Cluster in International
Teaching Profession

4. Lecturers Responsible for Course and Instructional:

Course Lectures:

4.1 Lecturer Responsible for Course:

Assoc.Prof. Chaweewan Kaewsaiha

4.2 Instructional Course Lecturers:

(1) Assoc.Prof. Chaweewan Kaewsaiha

(2) Assoc.Prof. Tasanee Siriwan

(3) Dr.Kanokrat Kunasaraphan

5. Contact / Get in Touch:

Room Number 2121 Tel. 02-160-1200

E-mail: chaweewan.ka@ssru.ac.th

6. Semester / Year of Study:

6.1 Semester: 2/2017 Year of Study: Graduate Student Year 1

6.2 Number of students enrolled: 3

7. Prerequisite Course

None

8. Co-requisite Course:

None

9. Learning Location

Building Number: 21 Room No. 2122

Tuesday 13.00 – 16.00

10. Last Date for Preparing and Revising this Course:

December 15, 2017

Section 2 Aims and Objectives

1. Course Aims

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

1.1 Morals and Ethics

- (1) Have integrity, honesty and teaching profession ethics;
- (2) Have discipline, self and social responsibility;
- (3) Have knowledge and understanding of Regulation of Teachers Council of Thailand on Professional Standards and Ethics and National Education Act.

1.2 Knowledge

- (1) Be able to compile courses to formulate a learning plan for teaching mathematics and design a learning model appropriate to the learners' ages;
- (2) Be able to select, develop and produce media and instrument that promote learning;
- (3) Be able to demonstrate the relationship between the Education Standards and the Quality Assurance.

1.3 Cognitive Skills

- (1) Be able to organize activities that promote learning and classify the learners' levels based on evaluation;
- (2) Able to manage learning resources and classroom environment for educational quality and standards;
- (3) Able to prepare self-evaluation report of educational institutions in support of internal and external evaluation.

1.4 Interpersonal Skills and Responsibility

- (1) Have responsibility for building positive attitude towards the learning management, learning resources and quality assurance;
- (2) Have knowledge and understanding of human relations to work in team both as leader or follower;
- (3) Be able to identify problems and seek best solutions to

strengthen teachers' potentiality and capabilities in academic and professional career.

1.5 Numerical Analysis, Communication and Information Technology Skills

- (1) Be able to apply numerical analysis in problem solving;
- (2) Have concepts, principles, and theories of technology and innovation that promote the learning quality;
- (3) Be able to design, create, implement, and evaluate innovation for improvement learning environment based on education quality.

1.6 Learning Management Skills

- (1) Be able to design learning activities and learning environments for learner's development;
- (2) Be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in mathematical process for problem solving through learning activities and resources;
- (3) Be able to analyze the indicators of quality assurance and prepare self-assessment report.

2. Objectives 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 in learning management, classroom management, and educational quality assurance as follows:

Essence of Knowledge:

- (1) ***Learning management***, consisting of
 - 1.1 Learning and teaching theories;
 - 1.2 Learning models and instructional model development;

- 1.3 Design and management of learning experiences;
- 1.4 Integration of contents for learning groups;
- 1.5 Integration for group learning;
- 1.6 Techniques and know-how in learning management;
- 1.7 Media implementation and production and innovative development for learning;
- 1.8 Learner-oriented learning management;
- 1.9 Learning evaluation.

(2) ***Classroom management***, consisting of:

- 2.1 Management theory and principles;
- 2.2 Educational leadership and teamwork;
- 2.3 Systematic thinking;
- 2.4 Learning of organizational culture;
- 2.5 Organizational human relations and communication;
- 2.6 Preparation and development academic programs and activities for educational institution and communities ;
- 2.7 Information system for management.

(3) ***Educational Quality Assurance***, consisting of:

- 3.1 Principles and procedures for educational quality assurance;
- 3.2 Elements of educational quality assurance;
- 3.3 Educational standards;
- 3.4 Internal and external assurance;
- 3.5 Roles of administrators on the educational assurance.

Competencies:

- (1) Able to compile courses to formulate a learning plan for teaching mathematics ;
- (2) Able to design a learning model appropriate to the learners' ages;
- (3) Able to select, develop and produce media and instrument that promote learning;
- (4) Able to organize activities that promote learning and classify the learners' levels based on evaluation.

Section 3 Characteristics and Operation

1. Course Outline

Principles, concepts and guidelines for developing learning plans; Learning resources and learning center; Planning for effective managing learning resources and environment for learning; Principles and models of learning management; Community-Based Learning and Problem-Based with critical, creative, and problem solving skills; Classroom management; Learner-oriented learning and Integration for inclusive learning*; Principles and procedures for educational quality assurance; Elements of educational quality assurance; Educational standards; Internal and external quality assurance; Roles of administrators on the educational quality assurance

Remark * Revised according to and the Teachers' Council of Thailand with the standards of professional knowledge and experience for requirement courses.

หลักการ แนวคิด และแนวทางสำหรับการพัฒนาแผนการเรียนรู้ แหล่งการเรียนรู้และศูนย์การเรียนรู้ การวางแผนสำหรับการจัดแหล่งการเรียนรู้ที่มีประสิทธิผลและสิ่งแวดล้อมสำหรับการเรียนรู้ หลักการและรูปแบบการจัดการเรียนรู้ การใช้ชุมชนและปัญหาเป็นฐานสำหรับการเรียนรู้ ด้วยทักษะการคิดวิเคราะห์ คิดสร้างสรรค์และแก้ปัญหา การจัดชั้นเรียน การเรียนรู้ที่เน้นผู้เรียนเป็นสำคัญและการบูรณาการสำหรับการเรียนรู้แบบรวม* หลักการและกระบวนการในการประกันคุณภาพทางการศึกษา องค์ประกอบของการประกันคุณภาพภายในและภายนอก บทบาทของผู้บริหารต่อการประกันคุณภาพทางการศึกษา

หมายเหตุ * ปรับปรุงตามมาตรฐานการประกอบวิชาชีพครูของคุรุสภาเกี่ยวกับความรู้ในวิชาชีพ และประสบการณ์สำหรับรายวิชาบังคับ

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

Lecture (hours)	Remedial Class (hours)	Practice/Field Work/Internship (hours)	Self-Study (hours)
48	3+ (if any)	9 (if any)	96

3. Time Length per Week for Individual Academic

Consulting and Guidance

3.1 Self consulting at the lecturer’s office: Building 21 Room 2121
Suan Sunandha Rajabhat University

3.2 Consulting via office telephone: Tel. 02-160-1200 or lecturer’s
mobile phone: Tel. 081-484-4361

3.3 Consulting via E-Mail: chaweewan.ka@ssru.ac.th

Section 4 Developing Student’s Learning Outcomes

1. Morals and Ethics

1.1 Morals and Ethics to be developed

- (1) Have integrity, honesty and teaching profession ethics;
- (2) Have discipline, self and social responsibility;
- (3) Have knowledge and understanding of Regulation of Teachers Council of Thailand on Professional Standards and Ethics and National Education Act.

1.2 Teaching Strategies

- (1) Group Work
- (2) Problem Solving
- (3) Performance Activities: arguing/debating different aspects of issues

1.3 Assessment Strategies

Group discussion Report

2. Knowledge

2.1 Knowledge to be developed

- (1) Be able to compile courses to formulate a learning plan for teaching mathematics and design a learning model appropriate to the learners' ages;
- (2) Be able to select, develop and produce media and instrument that promote learning;
- (3) Be able to demonstrate the relationship between the education Standards and the Quality Assurance.

2.2 Teaching Strategies

- (1) Directed Instruction
- (2) Discussion
- (3) Problem-Based Learning

2.3 Assessment Strategies

- (1) Term papers
- (2) Group report presentation

3. Cognitive Skills

3.1 Cognitive Skills to be developed

●	(1) Be able to organize activities that promote learning and classify the learners' levels based on evaluation;
●	(2) Able to manage learning resources and classroom environment for educational quality and standards;
●	(3) Be able to prepare self-evaluation report of educational institutions in support of internal and external evaluation.

3.2 Teaching Strategies

- (1) Research-based learning
- (2) Classroom-Based Learning
- (2) Group Work

3.3 Assessment Strategies

- (1) Individual portfolio
- (2) Term papers
- (3) Group report presentation

4. Interpersonal Skills and Responsibilities

4.1 Interpersonal Skills and Responsibilities to be developed :

- (1) Have responsibility for building positive attitude towards the learning management, learning resources and quality assurance;
- (2) Have knowledge and understanding of human relations to work in team both as leader or follower;
- (3) Be able to identify problems and seek best solutions to strengthen teachers' potentiality and capabilities in academic and professional career.

4.2 Teaching Strategies

- (1) Group Work
- (2) Problem Solving

4.3 Assessment Strategies

- (1) Term papers
- (2) Group report presentation

5. Numerical Analysis, Communication and Information Technology Skills

5.1 Numerical Analysis, Communication and Information

Technology to be developed:

- (1) Be able to apply numerical analysis in problem solving;
- (2) Have concepts, principles, and theories of technology and innovation that promote the learning quality;

- (3) Be able to design, create, implement, and evaluate innovation for improvement learning environment based on education quality.

5.2 Teaching Strategies

- (1) Research-based learning
- (2) Discussion
- (3) Group Work

5.3 Assessment Strategies

- (1) Individual portfolio
- (2) Term papers
- (3) Group report presentation

6. Learning Management Skills

6.1 Learning Management Skills to be developed:

- (1) Be able to design learning activities and learning environments for learner's development;
- (2) Be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in mathematical process for problem solving through learning activities and resources;
- (3) Be able to analyze the indicators of quality assurance and prepare self-assessment report.

6.2 Teaching Strategies

- (1) Research-based learning
- (2) Group Work

6.3 Assessment Strategies

- (1) Individual portfolio
- (2) Term papers
- (3) Group report presentation

Section 5 Lesson Plan and Assessment

1. Lesson Plan

Week	Topic/Outline	Hours	Learning Activities and Medias
1-2	Unit 1 Learning management, and classroom management	6	<ol style="list-style-type: none"> 1. Introduce the purpose, nature and scope of learning management and classroom management. 2. Students work with a group of five to discuss about the relevance of learning management and classroom management.
3	Unit 2 Learning resources	3	<ol style="list-style-type: none"> 1. Introduce learning resources by emphasizing the importance of planning for effective management of learning resources and environment to the real situation. 2. Students work with a group to discuss about learning resources and environment.
4	Unit 3 Types of learning resources: Learning materials, Learning projects	3	<ol style="list-style-type: none"> 1. Introduce types of learning resources, materials and projects. 2. Students work with a group of five to discuss about selecting and designing.

Week	Topic/Outline	Hours	Learning Activities and Medias
5	Unit 4 Research projects; Types of learning environment: Virtual learning environment, Community-Based learning environment	3	<ol style="list-style-type: none"> 1. Introduce research-based learning, virtual learning, and community-based learning. 2. Students discuss about real situation in learning mathematics by using research-based learning, virtual learning, and community-based learning.
6	Unit 5 Problem-Based learning environment	6	<ol style="list-style-type: none"> 1. Introduce problem-based learning in mathematics. 2. Students discuss about how to establish project using problem-based learning environment.
7	Mid-Term Examination	3	Paper-Test
8-10	Unit 6 Principles and procedures for educational quality assurance; Elements of educational quality assurance.	9	<ol style="list-style-type: none"> 1. Introduce principles, procedures, and elements of educational assurance. 2. Students work in groups of five discuss about educational assurance.
11-13	Unit 7 Educational standards; Internal and external quality assurance	9	<ol style="list-style-type: none"> 1. Introduce educational standards; Internal and external quality assurance. 2. Students work in groups discuss about educational standards; Internal and external quality assurance.

Week	Topic/Outline	Hours	Learning Activities and Medias
14-15	Unit 8 Roles of administrators on the educational quality assurance	6	1. Introduce roles of administrators on the educational quality assurance. 2. Case study of a guideline for administrators on the educational quality assurance..
16	Final Examination	3	Paper-Test
Total of Hours		48+	Reserve 1 – 2 weeks for searching related topics.

2. Learning Assessment Plan

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
1. Ethics and Morals (1) Have integrity, honesty and teaching profession ethics; (2) Have discipline, self and social responsibility; (3) Have knowledge and understanding of Regulation of Teachers Council of Thailand on Professional Standards and Ethics and National Education Act.	Group discussion Report	Throughout semester	5 %

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
<p>2. Knowledge</p> <p>(1) Be able to compile courses to formulate a learning plan for teaching mathematics and design a learning model appropriate to the learners' ages;</p> <p>(2) Be able to select, develop and produce media and instrument that promote learning;</p> <p>(3) Be able to demonstrate the relationship between the Education Standards and the Quality Assurance.</p>	<p>(1) Term papers</p> <p>(2) Group report presentation</p>	<p>Throughout semester</p>	<p>40 %</p>
<p>3. Cognitive Skills</p> <p>(1) Be able to organize activities that promote learning and classify the learners' levels based on evaluation;</p> <p>(2) Able to manage learning resources and classroom environment for educational quality and standards;</p>	<p>(1) Individual portfolio</p> <p>(2) Term papers</p> <p>(3) Group report presentation</p>	<p>Throughout semester</p>	<p>30 %</p>

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
(3) Able to prepare self-evaluation report of educational institutions in support of internal and external evaluation.			
<p>4. Interpersonal Skills and Responsibilities</p> <p>(1) Have responsibility for building positive attitude towards the learning management, learning resources and quality assurance;</p> <p>(2) Have knowledge and understanding of human relations to work in team both as leader or follower;</p> <p>(3) Be able to identify problems and seek best solutions to strengthen teachers' potentiality and capabilities in academic and professional career.</p>	<p>(1) Term papers</p> <p>(2) Group report presentation</p>	<p>Throughout semester</p>	<p>5 %</p>

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
<p>5. Numerical Analysis, Communication and Information Technology Skills</p> <p>(1) Be able to apply numerical analysis in problem solving;</p> <p>(2) Have concepts, principles, and theories of technology and innovation that promote the learning quality;</p> <p>(3) Be able to design, create, implement, and evaluate innovation for improvement learning environment based on education quality.</p>	<p>(1) Individual portfolio</p> <p>(2) Term papers</p> <p>(3) Group report presentation</p>	<p>Throughout semester</p>	<p>10 %</p>
<p>6. Learning Management Skills</p> <p>(1) Be able to design learning activities and learning environments for learner's development;</p> <p>(2) Be able to provide the learners with essential opportunities to enhance learning concepts and</p>	<p>(1) Individual portfolio</p> <p>(2) Term papers</p> <p>(3) Group report presentation</p>	<p>Throughout semester</p>	<p>10 %</p>

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
motivate active engagement in mathematical process for problem solving through learning activities and resources; (3) Be able to analyze the indicators of quality assurance and prepare self-assessment report.			

Section 6 Learning and Teaching Resources

1. Textbook and Main Documents

Killen, R. (1996). *Effective teaching strategies: Lesson from research and practice*. Australia: Social Science Press.

Ministry of Education. (2008). *Manual for the internal quality assurance for higher education institutions*. Bangkok : Commission on Higher Education.

2. Important Documents for Extra Study

Briggs, Ann R.J. & Sommefeldt, D. (2003). *Managing effective learning and teaching*. London : Sage.

Jones, V. (2011). *Practical classroom management*. Boston : Pearson.

Matson, E. & Prusak, L.(2006).*Knowledge management and organizational learning*. Oxford : Oxford University Press.

Office of the Basic Education Commission, Ministry of Education. (2548). *Basic education standards for internal quality assurance*. Standard Development and Internal Quality Assurance Division, Bureau of Academic Affairs and Educational Standards, Ministry of Education, Bangkok.

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

Keywords for searching: learning management, classroom management, learning resources, quality assurance.

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 statements:

- (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
- etc.

2. Strategies for Course Evaluation by Lecturer

2.1 Lecturers team observe the class and discuss the results as

follow:

- (1) The lecturer is well prepared for class sessions.
 - (2) The lecturer answers questions carefully and completely.
 - (3) The lecturer uses examples to make the materials easy to understand.
 - (4) The lecturer stimulated interest in the course.
 - (5) The lecturer made the course material interesting.
 - (6) The lecturer is knowledgeable about the topics presented in this course.
 - (7) The lecturer treats students respectfully.
 - (8) The lecturer is fair in dealing with students.
 - (9) The lecturer makes students feel comfortable about asking question.
 - (10) Course assignment are interesting and stimulating.
 - (11) The lecturer's use of technology enhanced learning in the classroom.
- etc.

2.2 The director / head of program construct assessment items to evaluate four dimensions of lecturer's competencies : teaching skills, organization and presentation of materials, management of the learning environment, and teaching attitudes.

3. Teaching Revision

Lecturer revises teaching / learning process based on the results from the students' survey questions, the lecturer team's observation, 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.

Curriculum Mapping Illustrating the Distribution of Program Standard Learning Outcomes to Course Level

Course	1. Morals and Ethics			2. Knowledge			3. Cognitive Skills			4. Interpersonal Skills and Responsibility			5. Numerical Analysis, Communication and Information Technology Skills			6. Learning Management Skills			
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
Course Category: Requirement Course--Teaching Profession Core Course																			
Course Code: MTP5107 Course Title: Learning Management, Learning Resource, and Quality Assurance for Mathematics Education	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●