



TQF.3

Bachelor's Degree

Master's Degree

Course Specification

Course Code: MTP5102 Course Title: Language and Culture for Mathematics
Teachers
Credits: 3(3-0-6)

Program: Mathematics Education, International College
Suan Sunandha Rajabhat University
(SSRUIC)

Semester: 1 Academic Year: 2016

Section 1 General Information

1. Code and Course Title:

Course Code: MTP5102

Course Title (English): Language and Culture for Mathematics
Teachers

Course Title (Thai): -

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

3. Curriculum and Course Category:

3.1 Curriculum: Master of Arts

3.2 Course Category:

General Education

Required Course

Elective Course

Others

4. Lecturer Responsible for Course and Instructional

Course Lecturer (s):

4.1 Lecturer Responsible for Course: Dr. Kanokrat Kunasaraphan

4.2 Instructional Course Lecturer(s):

Asst.Prof.Dr. Janchai Yingprayoon

5. Contact/Get in Touch

Room Number: 2121

Tel. 081-441-7092

E-mail: k_kade@yahoo.com

6. Semester/ Year of Study

6.1 Semester: 1 Year of Study: 2016

6.2 Number of the students enrolled: 3

7. Pre-requisite Course (If any)

Course Code: None

Course Title: None

8. Co-requisite Course (If any)

Course Code: None

Course Title: None

9. Learning Location

Building Number: International College

Room Number: 2122/Thursday 1.00-4.00 p.m.

10. Last Date for Preparing and Revising this Course:

20 January 2016

Section 2 Aims and Objectives

1. Course Aims

At the end of this course, the student will reach to five domains in the following areas of performance:

1.1 Morals and Ethics

(1) To have integrity and honesty

(2) To have discipline, self and social responsibility

(3) To have teaching profession ethics including knowledge and understanding of laws governing education

1.2 Knowledge

(1) To identify major parts of the principles of language and cross-culture

(2) To determine evidence of language and culture in the context of teaching and learning

(3) To develop problem solving plans relating to communication in classroom

1.3 Cognitive Skills

(1) To be able to search and study on problems for development of problem solving process

(2) To be able to use analytical and creative thinking to select, design, create and improve learners to solve problems

(3) To have comprehension, reasoning, interpreting, analyzing and synthesizing skills and integrate all knowledge and skills for using in educational institutions, being learning persons and academic leaders, using the evaluation and research results to improve the learning and curriculum management

1.4 Interpersonal Skills and Responsibility

(1) To develop strategies for improving interpersonal skills and responsibility for building positive attitude towards the teaching profession.

(2) To have knowledge, interpersonal skills, responsibility and understanding of organizational culture and organizational human relations to work in team both as leader or follower

(3) To be able to strengthen teachers' potentiality and capabilities in academic and professional career

1.5 Numerical Analysis, Communication and Information

Technology Skills

- (1) To analyze statistical report and able to compare the significant change
- (2) To present individual and group projects with PowerPoint Presentation and other programs
- (3) To functionally use Microsoft Office products, Internet and web based resources and have proficiency with e-mail to submit assignments

1.6 Learning Management Skills

- (1) To be able to design learning activities and learning environments within the context of a unit of learning and educational context
- (2) To be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in mathematical process for problem solving
- (3) To be able to develop the assessment and evaluation for learners' performance growth

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

According to TQF (Thailand Quality Framework: HEd.), graduate students should have opportunity to master learning in nature of person, think logically, good communication, realize morals and ethics, realize Thai cultural value and global cultural value. Finally students can apply knowledge in daily life for quality of life.

Section 3 Characteristics and Operation

1. Course Outline

The principles of Thai language and culture for teachers; English or other languages and cross-culture for teachers; and information and technology for mathematics teachers.

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	Upon student request	-	96

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

(The lecturer responsible for course identifies the information, for example, 1 hour / week)

3.1 Self consulting at the lecturer’s office: Room Number 2121

Building: Srijuthapha (Building 21)

3.2 Consulting via office telephone/mobile phone: 081-441-7092

3.3 Consulting via E-Mail: k_kade@yahoo.com

3.4 Consulting via Social Media (Facebook/Twitter/Line): search by using phone number

3.5 Consulting via Computer Network (Internet/Web board):

Moodle and personal website

Section 4 Developing Student’s Learning Outcomes

1. Morals and Ethics

1.1 Morals and Ethics to be developed

- (1) To have integrity and honesty
- (2) To have discipline, self and social responsibility
- (3) To have teaching profession ethics including

knowledge and understanding of laws governing education

1.2 Teaching Strategies

- (1) Cooperative learning
- (2) Problem-based learning

1.3 Assessment Strategies

- (1) Observation
- (2) Problem-based learning outputs

2. Knowledge

2.1 Knowledge to be developed

- (1) To identify major parts of the principles of language and cross-culture
- (2) To determine evidence of language and culture in the context of teaching and learning
- (3) To develop problem solving plans relating to communication in classroom

2.2 Teaching Strategies

- (1) Case study based learning
- (2) Project-based learning
- (3) Lecture and class discussion

2.3 Assessment Strategies

- (1) Group work
- (2) Project evaluation
- (3) Observation

3. Cognitive Skills

3.1 Cognitive Skills to be developed

- (1) To be able to search and study on problems for development of problem solving process
- (2) To be able to use analytical and creative thinking to

select, design, create and improve learners to solve problems

- (3) To have comprehension, reasoning, interpreting, analyzing and synthesizing skills and integrate all knowledge and skills for using in educational institutions, being learning persons and academic leaders, using the evaluation and research results to improve the learning and curriculum management

3.2 Teaching Strategies

- (1) Group discussion
- (2) Group presentation
- (3) Problem-based learning

3.3 Assessment Strategies

- (1) Observation: Rubrics, checklists, teacher interviews
- (2) Class project and presentation
- (3) Problem-based learning outputs

4. Interpersonal Skills and Responsibilities

4.1 Interpersonal Skills and Responsibilities to be developed

- (1) To develop strategies for improving interpersonal skills and responsibility for building positive attitude towards the teaching profession.
- (2) To have knowledge, interpersonal skills, responsibility and understanding of organizational culture and organizational human relations to work in team both as leader or follower
- (3) To be able to strengthen teachers' potentiality and capabilities in academic and professional career

4.2 Teaching Strategies

- (1) Cooperative learning
- (2) Role play
- (3) Problem-based learning

4.3 Assessment Strategies

- (1) Observation: Rubrics, checklists, teacher interviews
- (2) Checklists for role play
- (3) Rubrics for problem-based learning

5. Numerical Analysis, Communication and Information

Technology Skills

5.1 Numerical Analysis, Communication and Information

Technology to be developed

- (1) To analyze statistical report and able to compare the significant change
- (2) To present individual and group projects with PowerPoint Presentation and other programs
- (3) To functionally use Microsoft Office products, Internet and web based resources and have proficiency with e-mail to submit assignments

5.2 Teaching Strategies

- (1) Case study
- (2) Group presentation

5.3 Assessment Strategies

- (1) Report
- (2) Group project presentation

6. Learning Management Skills

6.1 Learning Management Skills

- (1) To be able to design learning activities and learning

environments within the context of a unit of learning and educational context

- (2) To be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in mathematical process for problem solving
- (3) To be able to develop the assessment and evaluation for learners' performance growth

6.2 Teaching Strategies

- (1) Case study
- (2) Group presentation

6.3 Assessment Strategies

- (3) Report
- (4) Group project presentation

Remark: Symbol ● means 'major responsibility'

Symbol ○ means 'minor responsibility'

No symbol means 'no responsibility'

The above symbols were shown in 'Curriculum Mapping' of TQF 2.
(Program Specification)

Section 5 Lesson Plan and Assessment

1. Lesson Plan

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
1	<ul style="list-style-type: none"> - Introduction to course aims, objectives and methods of assessment - Introduction to 	3	<ul style="list-style-type: none"> - T. introduces the overview of language, culture and technology by using 	Kanokrat

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
	language and communication with students to enhance learning - Exercises		<ul style="list-style-type: none"> - PowerPoint. - Ss. discuss exercises and case studies in groups of four to five about language, culture and technology using in classroom from given scenarios. - Ss. discuss their plans for final projects in group. 	
2	- Communication with students to enhance learning	3	<ul style="list-style-type: none"> - T. introduces the Communication with students to enhance learning by using PowerPoint. - Ss. discuss exercises and case studies in groups of four to five about communication in classroom from given scenarios. - Ss. develop final projects by discussing with their group members and lecturer. 	Kanokrat

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
3	<ul style="list-style-type: none"> - The role of language in education - What teacher need to know about language - Language for teaching and learning in the classroom - Glossary of Math teaching strategies 	3	<ul style="list-style-type: none"> - T. introduces the role of language in education by using PowerPoint. - Ss. discuss exercises and case studies in groups of four to five about what teacher need to know about language from given scenarios. - Ss. work in group to review and conclude language for teaching and learning in the classroom and glossary of Math teaching strategies. 	Kanokrat
4	<ul style="list-style-type: none"> - Roles for Math teachers - Role of language in teaching and learning Mathematics - Teaching children how to use language to solve Math problems 	3	<ul style="list-style-type: none"> - T. introduce the Roles for Math teachers and roles of language in teaching and learning Mathematics by using PowerPoint. - Ss. discuss exercises and case studies in groups of four 	Kanokrat

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
			<p>to five about teaching children how to use language to solve Math problems from given scenarios.</p> <ul style="list-style-type: none"> - Ss. develop final projects by discussing with their group members and lecturer. 	
5	<ul style="list-style-type: none"> - Science and language for English language learners - Lowering the language barrier in learning and teaching science - Effective strategies for teaching science vocabulary 	3	<ul style="list-style-type: none"> - T. introduces Science and language for English language learners, lowering the language barrier in learning and teaching science, and effective strategies for teaching science vocabulary by using PowerPoint. - Ss. information from website or library by using keyword: language development strategies for the teaching of science in English. 	Kanokrat

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
	-		- Ss. develop final projects by discussing with their group members and lecturer.	
6	- Improving communication in the classroom	3	- T. introduces how to improve communication in the classroom by using PowerPoint. - Ss. do activities about communication strategies and improvement in the science and mathematics classroom. - Ss. develop final projects by discussing with their group members and lecturer.	Kanokrat
7	- Language, culture and learning	3	- T. introduces language, culture and learning by using PowerPoint. - Ss. do activities about language, culture and learning from case studies.	Kanokrat
8	Midterm Examination	3	Paper Test

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
9	<ul style="list-style-type: none"> - Cultural differences - Diversity, learning styles and culture 	3	<ul style="list-style-type: none"> - T. introduces cultural differences and learning styles by using PowerPoint. - Ss. do activities about cultural differences and learning styles from given scenarios. Ss. search information from website or library by using keyword: Teaching science and mathematics in multilingual classroom. - Ss. develop final projects by discussing with their group members and lecturer. 	Kanokrat
10	<ul style="list-style-type: none"> - Multiple intelligences 	3	<ul style="list-style-type: none"> - T introduces multiple intelligences by using PowerPoint. - Ss. take the assessment about multiple intelligences and discuss. - Ss. develop final projects by 	Kanokrat

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
			discussing with their group members and lecturer.	
11	<ul style="list-style-type: none"> - Learning styles - Teaching methods 	3	<ul style="list-style-type: none"> - T. introduces learning styles and teaching methods by using PowerPoint. - Ss. discuss case studies in group of four or five about learning styles and teaching methods from real situation and scenario demonstrations. - Ss. develop final projects by discussing with their group members and lecturer. 	Kanokrat
12-14	<ul style="list-style-type: none"> - Academic writing - IELTS practice 	9	<ul style="list-style-type: none"> - T. introduces academic writing such as lesson plan, abstract and research proposal by using PowerPoint. - Ss. work in group of four or five and write lesson plan, abstract and 	Kanokrat

Week	Topic/Outline	Periods	Learning Activities and Medias	Lecturer
			research proposal. Ss. practice IELTS.	
15	- ICT and e-learning	3	- T. introduces ICT and e-learning for teaching and learning by using PowerPoint. - Ss. present the selected projects about creative problem solving and decision making.	Kanokrat
16	- Final project presentation - Remedial class or reviewing contents	3	- Ss. conduct presentations for their final projects. - T. reviews contents and guidelines for final examination.	Kanokrat
15	- Remedial class or reviewing contents	3	- T. reviews contents and guidelines for final examination.	Kanokrat
16	Make up class	3	Make up class	Kanokrat
17	Final Examination	3	Paper Test

2. Learning Assessment Plan

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
1	<p>Morals and Ethics</p> <p>(1) To have integrity and honesty</p> <p>(2) To have discipline, self and social responsibility</p> <p>(3) To have teaching profession ethics including knowledge and understanding of laws governing education</p>	<p>- Individual assignment</p> <p>- Group discussion</p>	Throughout semester	10%
2	<p>Knowledge</p> <p>(1) To identify major parts of the principles of language and cross-culture</p> <p>(2) To determine evidence of language and culture in the context of teaching and learning</p> <p>(3) To develop problem solving plans relating to communication in classroom</p>	<p>- Midterm examination</p> <p>- Final examination</p> <p>- Group project presentation</p>	<p>- Week 8</p> <p>- Week 17</p> <p>- Week 16</p>	<p>20%</p> <p>30%</p> <p>20%</p>

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
	thinking (3) To develop problem solving plan by using logical reasoning and scientific skills			
3	<p>Cognitive Skills</p> <p>(1) To be able to search and study on problems for development of problem solving process</p> <p>(2) To be able to use analytical and creative thinking to select, design, create and improve learners to solve problems</p> <p>(3) To have comprehension, reasoning, interpreting, analyzing and synthesizing skills and integrate all knowledge and skills for using in educational institutions, being learning persons and academic leaders, using the evaluation and research results to improve the learning and</p>	<ul style="list-style-type: none"> - Rubrics - Checklists - Teacher interviews - Assignments - Discussion and problem-based learning outputs 	Throughout semester	10 %

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
	curriculum management			
4	<p>Interpersonal Skills and Responsibilities</p> <p>(1) To develop strategies for improving interpersonal skills and responsibility for building positive attitude towards the teaching profession.</p> <p>(2) To have knowledge, interpersonal skills, responsibility and understanding of organizational culture and organizational human relations to work in team both as leader or follower</p> <p>(3) To be able to strengthen teachers' potentiality and capabilities in academic and professional career</p>	<ul style="list-style-type: none"> - Rubrics - Checklists - Teacher interviews 	Throughout semester	5 %

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
5	<p>Numerical Analysis, Communication and Information Technology Skills</p> <p>(1) To analyze statistical report and able to compare the significant change</p> <p>(2) To present individual and group projects with PowerPoint Presentation and other programs</p> <p>(3) To functionally use Microsoft Office products, Internet and web based resources and have proficiency with e-mail to submit assignments</p>	<ul style="list-style-type: none"> - Students use of PowerPoint lectures - Lecturer encourage students to use internet for research - Lecturer encourage students to use information technology in completion of both group and individual projects 	Throughout semester	5%
6	<p>Learning Management Skills</p> <p>(1) To be able to design learning activities and learning environments within the context of a unit of learning and educational</p>	<ul style="list-style-type: none"> - Students search for and use of learning resources - Lecturer encourage students to use internet for conduct a variety of learning activities 	Throughout semester	

	Learning Outcome	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
	context (2) To be able to provide the learners with essential opportunities to enhance learning concepts and motivate active engagement in mathematical process for problem solving (3) To be able to develop the assessment and evaluation for learners' performance growth	- Lecturer encourage students to have active engagement in mathematical process for problem solving		

Section 6 Learning and Teaching Resources

1. Textbook and Main Documents

Nieto, S. (2002). *Language, culture, and teaching*. NY: L. Erlbaum.

Ke, F., & Alicia, F. C. (2013). *Web-based teaching and learning across culture and age*. PA: Kogan Page Limited.

2. Important Documents for Extra Study

Gardner, H. (2006). *Multiple intelligences: New horizons in theory and practice*. PA: Kogan Page Limited.

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

Youtube

Sixth edition of the APA for reference formatting:

http://www.library.uq.edu.au/training/citation/apa_6.pdf

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.
-etc.

2. Strategies for Course Evaluation by Lecturer

2.1 Lecturer team observe the class and discuss the result 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 stimulates interest in the course.
- (5) The lecturer makes 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 assignments 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 the overall course structure and specific teaching methods based on the results from the students' evaluations, lecturer team's observation, department/director's observations, and classroom research.

4. Feedback for Achievement Standards

International College Administrator Committee monitors the assessment process and course grading.

5. Methodology and Planning for Course Review and Improvement

Lecturer will use the revision process to look for specific areas in subject area, teaching methodology and general course structure to improve upon in future course sessions.

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

Courses	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		
	<div style="display: flex; justify-content: space-between;"> ● Major Responsibility ○ Minor Responsibility </div>																	
Required Course	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
MTP5102 Language and Culture for Mathematics Teachers	○	○	○	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●