



TQF 3: Course Specification

Course Title: Language and Culture for Mathematics Teachers

Credit: 3(3-0-6)

Semester: 1 **Academic Year:** 2015

Curriculum: Master of Arts in Mathematics

Lecturer : Dr. Kanokrat Kunasaraphan

International College, Suan Sunandha Rajabhat University

(SSRUIC)

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Section 1 General Information

1. **Code and Course Title:** MTP5102 Language and Culture for Mathematics Teachers
2. **Credits:** 3(3-0-6)
3. **Curriculum and Course Category:**
This Course offering, as part of the Master of Arts, International College, SSRU, is categorized as an Mathematics Course.
4. **Lecturer:** Dr. Kanokrat Kunasaraphan
Office: 2124
Email: k_kade@yahoo.com
5. **Year / Semester**
Year 2015 / semester 1
6. **Prerequisite Course:**
None
7. **Co-requisite Course:**
None
8. **Learning Location**
Building: Building 31
Thursday 13.00-16.00 Room No. 2122
9. **Last Date for Preparing and Revising this Course:**

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 Able to apply the skills of listening, speaking, reading and writing in Thai to communicate correctly especially in the context of teaching and learning.
- 1.2 Able to apply the skills of listening, speaking, reading and writing in English to communicate correctly especially in the context of teaching and learning.
- 1.3 Able to understand cross-culture in the context of teaching and learning.
- 1.4 Able to use basic computer programs.

2. Objectives for Developing/Revising Course

According to TQF (Thailand Quality Framework: HEd.), graduate students should have opportunity to master learning in nature of language, culture, 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 Course Structure

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	Practice/Field Work/Internship	Self Study	Remedial Class
48 hours	-	96 hours	upon student request

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

Week day by appointment

Section 4 Developing Student's Learning Outcomes

Learning Standards/Outcomes	Learning Activities	Learning Assessment
1. Ethics and Morals To have ethic behavior (personal responsibility, corporate responsibility) and moral reasoning.	Work in group to discussion on language and culture for teachers.	Group discussion
2. Knowledge 2.1 To identify major parts of the principles of language and cross-culture. 2.2 To determine evidence of language and culture in the context of teaching and learning. 2.3 To develop problem solving plans relating to communication in classroom.	1. Introduce the principles of language and cross-culture by using PowerPoint and engage the students' interest and curiosity with case studies. 2. Discuss with the students why the persons in case studies are good teachers in classroom. 3. Have the students develop their plans for problem solving.	1. Test 2. Group report presentation
3. Cognitive Skills To use thought process in problem solving such as comprehension, reasoning, interpreting, analyzing and synthesizing.	Use problem-based learning to construct learning: Engagement - Students define the problem, often by assuming the role of a key actor in the problem situation. Inquiry – Students brainstorm with others and gather information from	1. Rubrics 2. Checklists 3. Teacher interviews 4. Problem-based learning outputs

	<p>multiple sources.</p> <p>Solution Building – Students work in teams discussing alternatives and examining possible solution.</p> <p>Debriefing and Reflection – Students share information, opinions, and ideas with each other based on what they have learned through the experiences.</p> <p>Presentation of Findings – Students write plans, reports, and other forms of work documentation to include in their portfolios or present their findings back to the class.</p>	
<p>4. Interpersonal Skills and Responsibilities</p> <p>4.1 To examine the role of interpersonal skills and responsibility as an aspect of work ethic.</p> <p>4.2 To develop strategies for improving interpersonal skills and responsibility.</p>	<p>Use scenario demonstration model to construct learning:</p> <ol style="list-style-type: none"> 1. Students work in group of five. They plan scenario in which they demonstrate inappropriate and appropriate interpersonal skills and responsibility in a variety of social situations. 2. Students use interpersonal skills and responsibility to share and express feelings to contribute to a safe community through maintaining positive relationship. 	<ol style="list-style-type: none"> 1. Rubrics 2. Checklists 3. Teacher interviews
<p>5. Numerical Analysis, Communication and Information Technology Skills</p> <p>5.1 To present individual and group projects</p> <p>5.2 To functionally use</p>	<ol style="list-style-type: none"> 1. Students use of PowerPoint lectures 2. Lecturer encourage 	<ol style="list-style-type: none"> 1. Assessment of group project 2. Assessment of

Internet and web based resources 5.3 To use Microsoft office products 5.4 Proficiency with email to submit assignments 5.5 To analyze statistical report and able to compare the significant change	students to use internet for research 3. Lecturer encourage students to use information technology in completion of both group and individual projects	individual project
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Section 5 Lesson Plan and Assessment

1. Lesson Plan

Week	Topic/Outline	Hours	Learning Activities and Medias	Lecturer
1	<ul style="list-style-type: none"> - Introduction to course aims, objectives and methods of assessment - Introduction to language and communication with students to enhance learning - Exercises 	3	<ul style="list-style-type: none"> - Introduce the overview of language, culture and technology by using PowerPoint. - Students discuss exercises and case studies in groups of four to five about language, culture and technology using in classroom from given scenarios. - Students discuss their plans for final projects in group. 	Kanokrat
2	<ul style="list-style-type: none"> - Communication with students to enhance learning 	3	<ul style="list-style-type: none"> - Introduce the Communication with students to enhance learning by using PowerPoint. - Students discuss exercises and case studies in groups of four to five about 	Kanokrat

			<p>communication in classroom from given scenarios.</p> <ul style="list-style-type: none"> - Students develop final projects by discussing with their group members and 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"> - Introduce the role of language in education by using PowerPoint. - Students discuss exercises and case studies in groups of four to five about what teacher need to know about language from given scenarios. - Students 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"> - Introduce the Roles for Math teachers and roles of language in teaching and learning Mathematics by using PowerPoint. - Students discuss exercises and case studies in groups of four to five about teaching children how to use 	Kanokrat

			<p>language to solve Math problems from given scenarios.</p> <ul style="list-style-type: none"> - Students 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"> - Introduce 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. - Students search information from website or library by using keyword: language development strategies for the teaching of science in English. - Students develop final projects by discussing with their group members and lecturer. 	Kanokrat
6	<ul style="list-style-type: none"> - Improving communication in the classroom 	3	<ul style="list-style-type: none"> - Introduce how to improve communication in the classroom by using PowerPoint. - Students do activities about 	Kanokrat

			<p>communication strategies and improvement in the science and mathematics classroom.</p> <ul style="list-style-type: none"> - Students develop final projects by discussing with their group members and lecturer. 	
7	<ul style="list-style-type: none"> - Language, culture and learning 	3	<ul style="list-style-type: none"> - Introduce language, culture and learning by using PowerPoint. - Students do activities about language, culture and learning from case studies. 	Kanokrat
8	Midterm Examination	3	Paper Test	
9	<ul style="list-style-type: none"> - Cultural differences - Diversity, learning styles and culture 	3	<ul style="list-style-type: none"> - Introduce cultural differences and learning styles by using PowerPoint. - Students do activities about cultural differences and learning styles from given scenarios. - Students search information from website or library by using keyword: Teaching science and mathematics in multilingual classroom - Students develop final projects by discussing with their group members and 	Kanokrat

			lecturer.	
10	<ul style="list-style-type: none"> - Multiple intelligences 	3	<ul style="list-style-type: none"> - Introduce multiple intelligences by using PowerPoint. - Students take the assessment about multiple intelligences and discuss. - Students develop final projects by discussing with their group members and lecturer. 	Kanokrat
11	<ul style="list-style-type: none"> - Learning styles - Teaching methods 	3	<ul style="list-style-type: none"> - Introduce learning styles and teaching methods by using PowerPoint. - Students discuss case studies in group of four or five about learning styles and teaching methods from real situation and scenario demonstrations. - Students 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"> - Introduce academic writing such as lesson plan, abstract and research proposal by using PowerPoint. - Students work in group of four or five and write lesson plan, 	Kanokrat

			abstract and research proposal. - Students practice IELTS.	
15	- ICT and e-learning	3	- Introduce ICT and e-learning for teaching and learning by using PowerPoint. - Students present the selected projects about creative problem solving and decision making.	Kanokrat
16	- Final project presentation - Remedial class or reviewing contents	3	- Students conduct presentations for their final projects - Lecturer review contents and guidelines for final examination	Kanokrat
17	Final Examination	3	Paper Test	
Total Hours		48		

2. Learning Assessment Plan

	<i>Learning Outcome</i>	<i>Assessment Activities</i>	<i>Time Schedule</i>	<i>Proportion of Assessment (%)</i>
1.	Ethics and Morals To have ethic behavior (personal responsibility, corporate responsibility) and moral reasoning	- Individual assignment - Group discussion	Throughout semester	10%
2.	Knowledge 2.1 To identify major parts of the principles of language and cross-culture. 2.2 To determine evidence of language and culture in the context of teaching and learning. 2.3 To develop problem	- Midterm examination - Final examination - Group project presentation	- Week 8 - Week 17 - Week 16	20% 30% 20%

	solving plans relating to communication in classroom.			
3.	Cognitive Skills To use thought process in problem solving such as comprehension, reasoning, interpreting, analyzing and synthesizing.	- Rubrics - Checklists - Teacher interviews - Assignments - Discussion and problem-based learning outputs	Throughout semester	10 %
4.	Interpersonal Skills and Responsibilities 4.1 To examine the role of interpersonal skills and responsibility as an aspect of work ethic. 4.2 To develop strategies for improving interpersonal skills and responsibility.	- Rubrics - Checklists - Teacher interviews	Throughout semester	5 %
5.	Numerical Analysis, Communication and Information Technology Skills 5.1 To present individual and group projects 5.2 To functionally use Internet and web based resources 5.3 To use Microsoft office products 5.4 Proficiency with email to submit assignments 5.5 To analyze statistical report and able to compare the significant change	- 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%

Section 6 Learning and Teaching Resources

1. Textbook and Main Document

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. Suggested Information Resources (Printing Materials/website/CD/Others)

Sixth edition of the APA for reference formatting:

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

Section 7 Course Evaluation and Improvement

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.