



## TQF.5 Course Report

**Course Code:** BMA3302

**Course Title:** Innovation and Technology for Mathematics Education

**Credits:** 3(3-0-6)

**Semester /Academic Year:** 3/2021

**Students:** Bachelor of Education (Mathematics) (Bilingual Program)

**Lecturers:** Mr. Luechai Tiprungsri and Assoc.Prof.Chaweewan Kaewsaiha

College of Hospitality Industry Management

Suan Sunandha Rajabhat University

## Course Report

**Institution:** Suan Sunandha Rajabhat University

**Campus/Faculty/Department:** College of Hospitality Industry Management

### Section1: General Information

**1. Course Code and Title:** BMA3302 Innovation and Technology for Mathematics Education

**2. Pre-requisite (if any):** None

**3. Faculty Members Teaching the Course and Sections**

Mr. Luechai Tiprungssee and Assoc.Prof.Chaweewan Kaewsaiha

Tuesday 13.00 – 16.00 Thursday 13.00-16.00 (Online/On-site/On-Demand)

**Semester and Academic Year**

Semester 3, Academic Year 2021

**4. Venue**

College of Hospitality Industry Management, Suan Sunandha Rajabhat University  
(Salaya Campus)

### Section 2: Actual Teaching Hours Compared with Teaching Hours Specified in the Teaching Plan

**1. Number of actual teaching hours compared with the teaching plan**

Topics	No. of teaching hours in the plan	No. of actual teaching hours	Reason(s) (in case the discrepancy is more than 25%)
<b>Course Introduction</b> - Course outlines - Grading criteria <b>Chapter 1:</b> A Framework for 21 <sup>st</sup> Century Education	6	6	-
<b>Chapter 2:</b> Innovation and Technology in 21 <sup>st</sup> Century Learning	6	6	-

Topics	No. of teaching hours in the plan	No. of actual teaching hours	Reason(s) (in case the discrepancy is more than 25%)
<b>Chapter 3:</b> Innovation for Teaching and Learning Strategies	12	12	-
Midterm			
<b>Chapter 4:</b> Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge	9	9	-
<b>Chapter 5:</b> Social Media and Massive Open Online Course (MOOC)	12	12	Practicing MOOC for mathematics
<b>Total</b>	<b>45</b>	<b>45</b>	

## 2. Topics that couldn't be taught as planned

Topics that couldn't be taught (if any)	Significance of the topics that couldn't be taught	Compensation
None	None	None

## 3. Effectiveness of the teaching methods specified in the Course Specification

Learning Outcomes	Teaching methods specified in the course specification	Effectiveness (Use ✓)		Problems of the teaching method(s) (if any) and suggestions
		Yes	No	
1. Morals and Ethics	Demonstration and Group Work	✓	-	-
2. Knowledge	Problem-Based and Technology-Based Learning	✓	-	-
3. Cognitive Skills	Problem-Based and Technology-Based Learning	✓	-	-
4. Interpersonal Skills and Responsibilities	Interpersonal Communication and Interaction	✓	-	-

Learning Outcomes	Teaching methods specified in the course specification	Effectiveness (Use ✓)		Problems of the teaching method(s) (if any) and suggestions
		Yes	No	
5. Numerical Analysis, Communication and Information Technology Skills	Inquiry-based and Internet-Based Learning	✓	-	-
6. Learning Management Skills	Problem-Based and Application Tools in Mathematics	✓	-	-

#### 4. Suggestions for Improving Teaching Methods

Using problem solving and ICT-based approach as teaching strategies.

### Section 3: Course Outcomes

1. Number of registered students: 19 students
2. Number of students at the end of semester: 19 students
3. Number of students who withdrew (W): none
4. Grade distribution

Grade	No. of students	Percentage
A	14	73.69
A-	1	5.26
B+	3	15.79
B	1	5.26
B-	-	-
C+	-	-
C	-	-
C-	-	-
D+	-	-
D	-	-
D-	-	-
F	-	-
Incomplete (I)	-	-
Total	19	100

#### 5. Factors causing unusual distribution of grades (If any)

None

## 6. Discrepancies in the evaluation plan specified in the Course Specification

### 6.1 Discrepancy in evaluation time frame

Details of Discrepancy	Reasons
Using online test / take home test for three hours according to academic announcement.	COVID 19 pandemic

### 6.2 Discrepancy in evaluation methods

Details of Discrepancy	Reasons
Using online test / take home test	COVID 19 pandemic

## 7. Verification of students' achievements

Verification Method(s)	Verification Result(s)
Program Committee Approval	Approved

## Section 4: Problems and Impacts

### 1. Teaching and learning resources

Problem:	Impacts on students' learning:
Due to students were limited to use computer or mobile devices.	Some students could not connect the program, but the students can download lessons from lecturer's website.

### 2. Administration and organization

Problems from administration	Impacts on students' learning
None	None
Problems from organization	Impacts on students' learning
None	None

## Section 5: Course Evaluation

### 1. Results of course evaluation by students

#### 1.1 Important comments from evaluation by students

Students had weaknesses in learning mathematics using English communication in writing steps of problem solving.

#### 1.2 Faculty members' opinions on the comments in 1.1

The lecturers should engage students in learning activities by using English-Thai for understanding.

## 2. Results of course evaluation by other evaluation methods

### 2.1 Important comments from evaluation by other evaluation methods

The lecturers must prepare alternative assessment to evaluate students' progression involving learning outcomes of the course.

### 2.2 Faculty members' opinions on the comments in 2.1

Considerations of methods of teaching and evaluation for students' improvement.

## Section 6: Improvement Plan

### 1. Progress of teaching and learning improvement recommended in the previous Course Report

Improvement plan proposed in previous Academic year 2021.  -None-	Results of the plan implementation  -None-
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### 2. Other improvements

Searching information for practicing English communication and more teaching and learning strategies using technology from online database

### 3. Suggestions for improvement for Semester 2 Academic year 2022

Suggestions	Time Frame	Responsible person
Collecting more materials and activities	May 2023	Assoc. Prof. Chaweewan Kaewsaiha

**4. Suggestions of faculty member(s) responsible for the course**

Integrating TPACK model for improving mathematical innovation and technology.

**Responsible Faculty Member/Coordinator:**

Signature.....Submission Date.....

**Chairperson/Program Director:**

Signature.....Receipt Date .....