



TQF.3

Bachelor's Degree

Master's Degree

# College of Hospitality Industry Management

## Course Specification

Course Code: GEN0303

Course Title: Science and Environment

Credits: 3 (3-0-6)

Program: Bachelor of Arts in International Business, Mathematics Education

College of Hospitality Industry Management,

Suan Sunandha Rajabhat University

(SSRU)

Semester: 2 Academic Year: 2021

# Table of Contents

<b>Section</b>	<b>Contents</b>	<b>Pages</b>
Section 1	General Information	2
Section 2	Objectives and Purposes	4
Section 3	Course Structure	6
Section 4	Development of Learning Outcomes in Domains of Learning	7
Section 5	Lesson Plan and Assessment	13
Section 6	Learning and Teaching Resources	18
Section 7	Course Evaluation and Improvement	19

# Section 1 General Information

**Course Code:** GEN0303

**Course Title:** Science and Environment

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

## 1. Code and Course Title:

**English:** GEN0303 Science and Environment

**Thai:** GEN0303 วิทยาศาสตร์และสิ่งแวดล้อม

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

## 3. Curriculum and Course Category:

3.1 Curriculum: Bachelor of Arts in Airline Business, Mathematics Education

3.2 Course Category:

General Education

Required Course

Elective Course

Others .....

This course of Bachelor of Arts, College of Hospitality Industry Management (CHM), SSRU, is categorized in *Airline Business Courses as General Education Course in Science Mathematics and Technology*

## 4. Lecturers Responsible for Course and Instructional: Course

### Lecturers:

4.1 Lecturer responsible for Course:

Dr. Dee Jean, Ong

4.2 Instructional Course Co-Lecturer:

## 5. Contact/Get in touch

Room number 305

5.1 Dr. Dee Jean, Ong

LINE: dj7.ong

E-mail: dee.on@ssru.ac.th

## 6. Semester/Year of study

6.1 Semester 2, Year of study 2021

6.2 Number of students enrolled: TBA Students

**7. Prerequisite Course**

None

**8. Co-requisite Course:**

None

**9. Learning Location**

College of Hospitality Industry Management (CHM),

Suan Sunandha Rajabhat University,

Nakhon Pathom Education Center

# Section 2 Objectives and Purposes

## 1. Course Objectives

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) Able to demonstrate on-time performance and morality in all area
- (2) Able to demonstrate relevant morals in the organization and in daily life

### 1.2 Knowledge

- (1) Able to understand the importance of world environment and climate change
- (2) Able to demonstrate and analyze in the important issues which are global warming, climate change, ozone depletion and severe weather changes
- (3) Able to indicate and up-to-date in the global environment situation
- (4) Able to indicate the cause and effect of world environment problems

### 1.3 Cognitive Skills

- (1) Able to demonstrate and Analyze in the important environment issues which are global warming, climate change, ozone depletion and severe weather changes
- (2) Able to understand and demonstrate solution in daily life
- (3) Able to indicate the cause and the effect of world environment problems

### 1.4 Interpersonal Skills and Responsibility

- (1) Able to apply new solutions to minimize the environment issues
- (2) Able to realize the consciousness for solving the environment issues
- (3) Able to apply morality in a teamwork
- (4) Able to demonstrate the related ideas with the team

### **1.5 Numerical Analysis, Communication and Information Technology Skills**

- (1) Be able to use IT to search for new knowledge and apply numerical analysis in world environment with emphasis on practical and real life experiences, use basic ICT skills and apply daily

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

Regarding to TQF (Thailand Qualification Framework: HEEd.) for General Education courses, undergraduate students should have an opportunity to demonstrate their logical thinking to integrate in terms of global warming, climate change, ozone depletion and severe weather changes. In addition, the students need to express their ideas through the group discussion, case study, report and presentation in the relevant topics which are the cause, the problem and the solution. Lastly, the students must be concentrating on managing system in order to apply all knowledge for protecting ecosystem in the world.

## Section 3 Course Structure

### 1. Course Outline

Scientific study relating to the effect of environmental behaviours on human and human behaviour on environment, integrated ecosystem of natural resources, biological diversity, environmental conservation and pollution problems, environmental standard with the improvement of environment for suitable quality of life.

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

Lecture	Practice/ Field Work/Internship	Self-Study	Remedial Class
3 hours/weeks	0 hours	6 hours/week	3+ (if any)

### 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 305, by appointment only (Nakorn Pathom Education Center /SSRUIC)

3.2 Consulting via office telephone/mobile phone: as above

3.3 Consulting via E-Mail: as above

3.4 Consulting via Social Media (Facebook/Twitter/Line): Line

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

# Section 4 Developing Student's Learning Outcomes

## 1. Morals and Ethics

### 1.1 Morals and Ethics to be developed

- Be able to deliver or complete the required task on time
- Be able to do the right thing according to the values, beliefs, and principles they claim to hold
- Be able to make decisions according to moral concepts and judgements

### 1.2 Teaching Strategies

- Direct instruction
- Discussion
- Student research
- Self - study

### 1.3 Assessment Strategies

- Measurement of punctuality and attendance
- Measurement of personal interaction style
- Measurement of original contribution

## 2. Knowledge

### 2.1 Knowledge to be developed

- Be able to identify the proper theories and describe important case studies
- Be able to provide an analysis and provide solutions to real world problems
- Be able to organize self-study and share information with the class



## **2.2 Teaching Strategies**

- Cooperative learning
- Problem-based learning
- Direct instruction
- Self - Study

## **2.3 Assessment Strategies**

- Mid-term test
- Final test
- Cooperative learning evaluations

## **3. Cognitive Skills**

### **3.1 Cognitive Skills to be developed**

- The ability to gather and summarize information, and conduct research
- Self-study and sharing information with the class
- The ability to solve problems with case studies

### **3.2 Teaching Strategies**

- Cooperative learning
- Problem-based learning
- Direct instruction
- Self - Study

### **3.3 Assessment Strategies**

- Cooperative learning evaluations
- Direct instruction
- Quizzes

## **4. Interpersonal Skills and Responsibilities**

### **4.1 Interpersonal Skills and Responsibilities to be developed**

- Be able to use interpersonal communication skills

- Be able to collaborate in teams and solve problems
- Demonstrate leadership

#### **4.2 Teaching Strategies**

- Direct instruction
- Cooperative learning
- Group work activities

#### **4.3 Assessment Strategies**

- Quizzes
- Cooperative learning evaluations
- Group work evaluations

### **5. Numerical Analysis, Communication and Information Technology Skills**

#### **5.1 Numerical Analysis, Communication and Information Technology to be developed**

- Be able to use IT to search for new knowledge and apply numerical analysis with emphasis on practical and real-life experiences, use basic ICT skills and apply daily

#### **5.2 Teaching Strategies**

- Direct instruction and Group work activities

#### **5.3 Assessment Strategies**

- Quizzes and Group work evaluations

### **6. Other Domain**

None

- **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)

<b>Learning Standards/Outcomes</b>	<b>Learning Activities</b>	<b>Learning Assessment</b>
<p><b>1. Morals and Ethics</b></p> <p>1.1 Be able to deliver or to complete a required task at appointed time;</p> <p>1.2 Be able to do the right thing according to the values, beliefs, and principles they claim to hold;</p> <p>1.3 Be able to make decisions in business according to moral concepts and judgments.</p>	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Constructivist approaches</li> <li>• Cooperative learning: Jigsaw</li> </ul>	<ul style="list-style-type: none"> <li>• Attendance</li> <li>• Quizzes</li> <li>• Group reports and presentations</li> </ul>
<p><b>2. Knowledge</b></p> <p>2.1 Be able to identify the proper theories and describe important case studies.</p> <p>2.2 Be able to provide an analysis and provide the solution to real world problems.</p> <p>2.3 Be able to organize self-study and sharing information to the class.</p>	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Constructivist approaches</li> <li>• Cooperative learning: Jigsaw</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Midterm</li> <li>• Final</li> <li>• Group reports and presentations</li> </ul>

Learning Standards/Outcomes	Learning Activities	Learning Assessment
<p><b>3. Cognitive Skills</b></p> <p>3.1 The ability to gather and summarize information, and conduct research;</p> <p>3.2 Self-study and sharing information to the class;</p> <p>3.3 The ability to solve problems from case studies.</p>	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Constructivist approaches</li> <li>• Cooperative learning: Jigsaw</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Midterm</li> <li>• Final</li> <li>• Group reports and presentations</li> </ul>
<p><b>4. Interpersonal Skills and Responsibilities</b></p> <p>4.1 Be able to use interpersonal English as a communication skill.</p> <p>4.2 Be able to collaborate well in teams for problem solving.</p> <p>4.3 Be able to show leadership skills.</p>	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Constructivist approaches</li> <li>• Cooperative learning: Jigsaw</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Group reports and presentations</li> <li>• Evaluate English skills during class</li> </ul>

Learning Standards/Outcomes	Learning Activities	Learning Assessment
<p><b>5. Numerical Analysis, Communication and Information Technology Skills</b></p> <p>5.1 Be able to use IT to search for new knowledge and apply numerical analysis in communication with emphasis on practical and real life experiences, use statistics and mathematics to solve air transport business problems by using basic ICT skills and apply them daily.</p> <p>.</p>	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Constructivist approaches</li> <li>• Cooperative learning: Jigsaw</li> </ul>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Group reports and presentations</li> </ul>

# Section 5 Lesson Plan and Assessment

## 1. Lesson Plan

Week	Topic/Outline	Period	Learning Activities and Medias
1	<b>Unit 1:</b> Introduction to World Environment <ul style="list-style-type: none"> <li>• Course Outline and evaluation criteria</li> </ul>	3	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Cooperative approaches</li> <li>• Watching up-to-date Video clip on Environment issues</li> </ul>
2	<b>Unit 1:</b> Introduction to World Environment	3	Take home tasks
3	<b>Unit 2:</b> Climate Change and Global Warming	3	<ul style="list-style-type: none"> <li>• Lecture discussion</li> <li>• Student-centered: Problem-Based learning</li> </ul>
4	<b>Unit 2:</b> Climate Change and Global Warming	3	Take home tasks
5	<b>Unit 3:</b> Renewable and Non-renewable energy	3	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Problem-Based learning</li> <li>• Cooperative learning</li> </ul>
6	<b>Unit 3:</b> Renewable and Non-renewable energy	3	Take home tasks
7	<b>Self-Study Week</b>	3	Self-study week
8	<b>Revision Week</b>	3	Revision week

<b>Week</b>	<b>Topic/Outline</b>	<b>Hours</b>	<b>Learning Activities and Medias</b>
<b>9</b>	<b>Unit 4: Pollution</b>	3	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Problem-Based learning</li> <li>• Cooperative learning approaches</li> </ul>
<b>10</b>	<b>Unit 4: Pollution</b>		Take-home tasks
<b>11</b>	<b>Unit 5: Hot Issues</b>	3	<ul style="list-style-type: none"> <li>• Lecture and group discussion</li> <li>• Student-centered: Problem-Based learning</li> <li>• Cooperative learning</li> </ul>
<b>11</b>	<b>Unit 5: Hot Issues</b>	3	Take home tasks
<b>12</b>	Assignment 1 Submission Individual/Pair/Group (30%)	3	<ul style="list-style-type: none"> <li>• Online submission</li> </ul>
<b>13</b>	Final exam mock-up practice	3	<ul style="list-style-type: none"> <li>• Discussion</li> </ul>
<b>14</b>	<b>Make up class</b>	<b>3</b>	<ul style="list-style-type: none"> <li>• Make up class</li> </ul>
<b>15</b>	<b>Group project and presentation</b>	3	<ul style="list-style-type: none"> <li>• Group presentation</li> </ul>
<b>16</b>	<b>Group project and presentation</b>	3	<ul style="list-style-type: none"> <li>• Group presentation</li> </ul>
<b>17</b>	<b>Final Examination</b>		
	Total Hours	48	

## 2. Learning Assessment Plan

Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
<p><b>1 Morals and Ethics</b> 1.1 Be able to deliver or to complete a required task at appointed time;</p> <p>1.2 Be able to do the right thing according to the values, beliefs, and principles they claim to hold;</p> <p>1.3 Be able to make decisions in business according to moral concepts and judgments.</p>	<ul style="list-style-type: none"> <li>• Attendance</li> <li>• Quizzes</li> <li>• Student behavior</li> </ul>	<p>Throughout semester</p>	<p>10 %</p>
<p><b>2. Knowledge</b> 2.1 Be able to identify the proper theories and describe important case studies;</p> <p>2.2 Be able to provide an analysis and provide the solution to real world problems;</p> <p>2.3 Be able to organize self-study and sharing information to the class.</p>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Midterm</li> <li>• Final</li> <li>• Group reports and presentations</li> </ul>	<p>Throughout semester</p>	<p>55 %</p>



Learning Outcomes	Assessment Activities	Time Schedule (Week)	Proportion for Assessment (%)
<p><b>3. Cognitive Skills</b></p> <p>3.1 The ability to gather and summarize information, and conduct research;</p> <p>3.2 Self-study and sharing information to the class;</p> <p>3.3 The ability to solve problems from case studies</p>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Midterm</li> <li>• Final</li> <li>• Group reports and presentations</li> </ul>	<p>Throughout semester</p>	<p>20 %</p>
<p><b>4. Interpersonal Skills and Responsibilities</b></p> <p>4.1 Be able to use interpersonal English communication skills.</p> <p>4.2 Be able to collaborate well in teams for problem solving.</p> <p>4.3 Be able to show leadership skills.</p>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Group reports and presentations</li> <li>• Evaluate English skills during class</li> </ul>	<p>Throughout semester</p>	<p>5 %</p>

<b>Learning Outcomes</b>	<b>Assessment Activities</b>	<b>Time Schedule (Week)</b>	<b>Proportion for Assessment (%)</b>
<p><b>5. Numerical Analysis, Communication and Information Technology Skills</b></p> <p>5.1 Be able to use IT to search for new knowledge and apply numerical analysis in communication with emphasis on practical and real life experiences, use statistics and mathematics to solve air transport business problems by using basic ICT skills and apply them daily.</p>	<ul style="list-style-type: none"> <li>• Quizzes</li> <li>• Group reports and presentations</li> </ul>	<p>Throughout semester</p>	<p>10 %</p>

# Section 6 Learning and Teaching Resources

## 1. Textbook and Main Documents

Alex Steffen, c. b. (2011). **World Changing a user guide for the 21st century**. New York: Abram.

Silver, J. (2008). **global warming and climate change**. America: RR Donnelley.

Yarrow, J. (2009). **Ecological Science**, London: Duncan Baird

Kiran B Chhokar, Mamata Pandya, Meena Raghunathan (2004)  
**Understanding Environment**. New Delhi

## **2. Important Documents for Extra Study**

Documentaries: Home, Inconvenience Truth, Strange days on planet earth and Earth Report. Online Medias: You Tube:

Global warming: <http://www.youtube.com/watch?v=oJAbATJCugs&feature=fvvr>

Sustainability: <http://www.youtube.com/watch?v=B5NiTN0chj0&feature=related>

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

### **Keywords for searching:**

Online Academic Journal:

Charles, B. (1993). Some Fundamental Truths About Tourism: Understanding Tourism's Social and Environment fall impact. *Journal of sustainable tourism*, 7-15.

Gian-Reto Walther, Eric Post, Peter Convey, Annette Menzel, Camille Parmesank, Trevor J. C. Beebee, Jean-Marc Fromentin. (2002, March 28). Ecological responses to recent climate. *Macmillan Magazines* , pp. 389-39

# **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.

## **2. Strategies for Course Evaluation by Lecturer**

2.1 Lecturers team observes the class and discusses the results as follow:

- (1) The lecturer is well prepared for class sessions.
- (2) The lecturer answers question 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 is interesting and stimulating.
- (11) The lecturer's use of technology enhanced learning in the classroom.

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