



TQF.3 Course Specification

Section 1 General Information

1. Course Code and Title

In Thai	วทศน ๑๑๑ การแสวงหาความแปลกใหม่
In English	SCGI 111 Exoacquisition

2. Number of Credits . 3 (3 - 0 - 6)

(Theory 3 hrs. Practice 0 hrs. Self-study 6 hrs/week)

3. Curriculum and Course Type

3.1 Program of Study International Bachelor's Degree

3.2 Course TypeGeneral Education.....

3.3 Please Specify Course's Literacy

- MU Literacy (Core Values, SEP, GE for Human Development)
- Health Literacy (Health, Sport)
- Digital Literacy (ICT, Applied Mathematics)
- Social and Humanity Literacy (Social, Humanity, Law, Ethics, Arts)
- Communication Literacy (language, Academic Communication)
- Science and Environmental Literacy (Applied Science for Life, Environmental Responsibility)
- Finance and Management Literacy (Finance, Management, Entrepreneur)

3.4 Please Specify Relationship between course and corporate culture

- M - Mastery รู้แจ้ง รู้จริง สมเหตุ สมผล
- A - Altruism มุ่งผลเพื่อผู้อื่น
- H - Harmony กลมกลืนกับสรรพสิ่ง
- I - Integrity มั่นคงยิ่งในคุณธรรม
- D - Determination แน่วแน่ทำ กล้าตัดสินใจ
- O - Originality สร้างสรรค์สิ่งใหม่
- L - Leadership ใฝ่ใจเป็นผู้นำ

4. Course Coordinator and Instructor

4.1 Course Instructor Assoc. Prof. Ekasith Somsook
Department of Chemistry, Faculty of Science
Phone: 02-201-5123
Email address: ekasith.som@mahidol.ac.th



4.2 **Instructor** Assoc. Prof. Ekasith Somsook

5. Semester/Class Level

5.1 Semester 1st-semester / 1st-4th-year students

5.2 Number of Students Allowed Approximately 100 Students

6. Pre-requisite

.....none.....

7. Co-requisites

.....none.....

8. Study Site Location

Salaya or Phaya Thai campus

9. **Date of Preparation/Latest Revision** 23 August 2020

of the Course Specifications

Section 2 Aims and Objectives

1. Aims of the Course

Students are expected to solidify and empower their imagination and cast it into short original exotic stories in an acceptable rating system based on their scientific knowledge.

2. Objectives of Course Development/Revision

2.1 Course Objectives

Student will be able to:

1. Apply the 21st-century skills in the production of sci-fi movie scripts.
2. Criticize the scientific knowledge in a sci-fi movie.
3. Propose future technologies by developing an original sci-fi story plot in an acceptable rating system.
4. Collaborate with classmates to write a short movie script based on the created story plot.

2.2 Course-level Learning Outcomes (CLOs)

By the end of the course, students are able to

- 1.CLO1 Criticize and relate the scientific principles in a sci-fi movie.



- 2.CLO2 Write a sci-fi story plot based on the characters created in class.
- 3.CLO3 Work in a group to role-play a character for a short movie script.
- 4.CLO4 Conform the scientific ethics and show good responsibility and work as a team.

Section 3 Course Description and Implementation

1. Course Description)

หลักการทางวิทยาศาสตร์ที่เกี่ยวข้องในหนังวิทยาศาสตร์ การสร้างตัวละครและเค้าโครงเรื่องหนังวิทยาศาสตร์ การวาดภาพของเค้าโครงเรื่องที่เขียนขึ้นมา การเขียนบทละครสั้น การวาดภาพของฉากที่สำคัญจากบทละครสั้นที่เขียนขึ้นมา

Related scientific principles in sci-fi movies; the creation of characters and sci-fi story plots; the illustration of created story plots; the creation of short movie scripts; cartoon sketches from created movie scripts

2. Number of Hours Per Semester

Theory (hours)	Practice (hours)	Self-study (hours)
45	0	90

3. Number of Hours per Week for Individual Advice

1 hour/week (during office hours). To arrange counselling hour, student can contact lecturer directly.

Section 4: Development of the expected learning outcomes

1. A brief summary of the knowledge or skills expected to develop in students; the course-level expected learning outcomes (CLOs)

By the end of the course, students who successfully complete the course will be able to:

- 1.1 CLO1 Criticize and relate the scientific principles in a sci-fi movie.
- 1.2 CLO2 Write a sci-fi story plot based on the characters created in class.
- 1.3 CLO3 Work in a group to role-play a character for a short movie script.
- 1.4 CLO4 Conform the scientific ethics and show good responsibility and work as a team.

2. How to organize learning experiences to develop the knowledge or skills stated in number 1 and how to measure the learning outcomes



Course Code	Teaching and learning experience management				Learning outcome measurements	
	Lecture	Group Discussion	Group Presentation	Co-operative Learning	individual assignment from	oral presentation from
SCGI 111 Exoacquisition						
CLO1 Criticize and relate the scientific principles in a sci-fi movie.	✓	✓	✓	✓	✓	✓
CLO2 Write a sci-fi story plot based on the characters created in class.	✓	✓	✓	✓	✓	✗
CLO3 Work in a group to role-play a character for a short movie script.	✓	✓	✓	✓	✗	✓
CLO4 Conform the scientific ethics and show good responsibility and work as a team.	✓	✓	✓	✓	✓	✓

SECTION 5 LESSON PLAN AND EVALUATION

1. Lesson Plan

Week	Topic/Details	CLOs	Number of hours				Teaching Method Multimedia	Instructors	
			Classroom sessions			Practice			Self-Study
			Theory-based activities	Visual References/ Demonstration	Online Courses				
1	Orientation and scientific principles in sci-fi movies	1,4	3			6	Teaching activities Lecture Discussion Individual assignment - Cooperative Learn-	Assoc. Prof. Ekasith Somsook	



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Week	Topic/Details	CLOs	Number of hours					Teaching Method Multimedia	Instructors
			Classroom sessions			Practice	Self-Study		
			Theory-based activities	Visual References/ Demonstration	Online Courses				
2	Watch sci-fi movies I and write commentaries about scientific principles in the movies	1,4	3				6	ing Media -PowerPoint slides - Movies Teaching activities Lecture Discussion Individual assignment - Cooperative Learning Media -PowerPoint slides - Movies	Assoc. Prof. Ekasith Somsook
3	Watch sci-fi movies II and write commentaries about scientific principles in the movies	1,4	3				6	Teaching activities Lecture Discussion Individual assignment - Cooperative Learning Media -PowerPoint slides - Movies	Assoc. Prof. Ekasith Somsook
4	Watch sci-fi movies III and write commentaries about scientific principles in the movies	1,4	3				6	Teaching activities Lecture Discussion	Assoc. Prof. Ekasith Somsook



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Week	Topic/Details	CLOs	Number of hours					Teaching Method Multimedia	Instructors
			Classroom sessions			Practice	Self-Study		
			Theory-based activities	Visual References/ Demonstration	Online Courses				
							Individual assignment - Cooperative Learning Media -PowerPoint slides - Movies		
5	Learn how to make a story plot and work individually to create a character and write a story plot	2,4	3				6	Teaching activities Lecture Discussion Individual assignment - Cooperative Learning Media -PowerPoint slides - Movies	Assoc. Prof. Ekasith Somsook
6	Review story plots from students	2,4	3				6	Teaching activities Lecture Discussion Individual assignment - Cooperative Learning Media -Shared online whiteboard	Assoc. Prof. Ekasith Somsook
7	Finalize story plots from	2,4	3				6	Teaching activi-	Assoc.



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Week	Topic/Details	CLOs	Number of hours					Teaching Method Multimedia	Instructors
			Classroom sessions			Practice	Self-Study		
			Theory-based activities	Visual References/ Demonstration	Online Courses				
	students							ties Lecture Discussion Individual assignment - Cooperative Learning Media -Shared online whiteboard	Prof. Ekasith Somsook
8	Learn how to illustrate a story plot into a full-color picture	2,4	3				6	Teaching activities Lecture Discussion Individual assignment - Cooperative Learning Media -Shared online whiteboard	Assoc. Prof. Ekasith Somsook
No Midterm									
9	Finalize the illustration of story plots	2,4	3				6	Teaching activities Lecture Discussion Individual assignment - Cooperative Learning Media	Assoc. Prof. Ekasith Somsook



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Week	Topic/Details	CLOs	Number of hours					Teaching Method Multimedia	Instructors
			Classroom sessions			Practice	Self-Study		
			Theory-based activities	Visual References/ Demonstration	Online Courses				
								-Shared online whiteboard	
10	Choose a story plot and work collaboratively to write a short movie script	3,4			3		6	Teaching activities Lecture Discussion Group assignment Cooperative Learning Media Shared online whiteboards VDO Conference app	Assoc. Prof. Ekasith Somsook
11	Continue working on a short movie script	3,4			3		6	Teaching activities Lecture Discussion Group assignment Cooperative Learning Media Shared online whiteboards VDO Conference app	Assoc. Prof. Ekasith Somsook
12	Finalize the short movie script	3,4			3		6	Teaching activities Lecture Discussion Group assignment Cooperative	Assoc. Prof. Ekasith Somsook



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Week	Topic/Details	CLOs	Number of hours					Teaching Method Multimedia	Instructors
			Classroom sessions			Practice	Self-Study		
			Theory-based activities	Visual References/ Demonstration	Online Courses				
							Learning Media Shared online whiteboards VDO Conference app		
13	Choose a short movie script and work collaboratively to start sketching cartoons from a short movie script	3,4			3		6	Teaching activities Lecture Discussion Group assignment Cooperative Learning Media Shared online whiteboards VDO Conference app	Assoc. Prof. Ekasith Somsook
14	Continue sketching cartoons from a short movie script	3,4	3				6	Teaching activities Lecture Discussion Group assignment Cooperative Learning Media Shared online whiteboards VDO Conference app	Assoc. Prof. Ekasith Somsook
15	Finalize sketching cartoons from a short movie script	3,4	3				6	Teaching activities Lecture	Assoc. Prof. Ekasith



Week	Topic/Details	CLOs	Number of hours					Teaching Method Multimedia	Instructors
			Classroom sessions			Practice	Self-Study		
			Theory-based activities	Visual References/ Demonstration	Online Courses				
							Discussion Group assignment Cooperative Learning Media Shared online whiteboards VDO Conference app	Somsook	
16	Final exam								
	Number of hours per semester		33	0	12	0	90		
	Total		45			0	90		

2. Evaluation of the CLOs

2.1 Measurement and Evaluation of learning achievement

a. Formative assessment

The aim of formative assessment is to monitor student learning and to improve their learning, so it will not be included with course score. Methods of formative assessment are as follows: Asking short questions or quantitative problems in the classroom to evaluate students' understanding.

b. Summative assessment

(1) Tool and weight for measurement and evaluation

Learning Outcomes	Measurement Method	Weight (ร้อยละ) (Percentage)	
CLO1 Criticize and relate the scientific principles in a sci-fi movie.	Individual reports	10	10
	Group work	10	10



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Learning Outcomes	Measurement Method	Weight (ร้อยละ) (Percentage)	
CLO2 Write a sci-fi story plot based on the characters created in class.	Individual reports	20	20
CLO3 Work in a group to role-play a character for a short movie script.	Group work	30	30
CLO4 Conform the scientific ethics and show good responsibility and work as a team.	Individual reports	10	10
	Group work	20	20
total			100



Grading Rubric	4	3	2	1
Scientific Knowledge (30%)	Correct 100 %	Correct 75 %	Correct 50 %	Correct 25 %
Picturesqueness (25%)	Fantastic colorful work, excellent creativity, very neat	Colorful work, good creativity, neat	Fair colorful work, average creativity, more or less neat	Work need to be revised, no creativity, not neat
Teamwork (15%)	Always contribute to the overall goal of the group	Usually respectfully listens, interacts, discusses, and contributes to the group, helping the group to achieve a consensus	Sometimes respectfully listens, interacts, discusses, and contributes to the group, helping the group to achieve a consensus	Rarely respectfully listens, interacts, discusses, and contributes to the group, helping the group to achieve a consensus
Communication skills (20%)	Clear message, excellent communication tools	Almost clear message, good communication tools	Clear message in more or less degree, fair communication tools	Unclear message, bad communication tools

(2) Measurement and evaluation

Evaluation of this course is performed according to Mahidol University regulations and Faculty of Science announcement related to bachelor's degree education. The following grade symbols, O, S, and U, with criteria are given in the below Table:

Score (percentage)	Symbols
80 – 100	O
50 – 79	S
0 – 49	U

To pass this course, student must earn a grade of S or O.

(3) Re-examination should be made available.

3. Students' Appeal



Students may submit formal complaint or academic appeal directly to
Salaya Campus

International Education and Administration Unit, Division of Salaya Campus
Room SC1-116, SC1-Building, Faculty of Science (Salaya Campus), Mahidol University
999 Phuttamonthon 4 Road, A. Phuttamonthon, Nakhon Pathom 73170, Thailand

E-mail: scsim@mahidol.ac.th; Phone: +66 2 4419820 ext. 1199

Phayathai Campus

Academic section, Faculty of Science, Mahidol University
272 Rama VI Road Ratchatavee Bangkok 10400, Thailand
Tel: 02-2015050-54

If it is considered that a case exists, the matter will be investigated in accordance with the procedures, and the complainant informed of the outcome.

Section 6 Teaching Resources

1. Required Texts

- 1) Ruditis, P; Galden-Stone, S.; Hugo, S. The Star Trek Book. 1st Ed. U.K.; Dorling Kindersley; 2016.
- 2) Bray, A; Horton, C.; Barr, P.; Wallace, D.; Windham, R.; Jones, M. Ultimate Star Wars. 2019 Ed. U.K.; Dorling Kindersley; 2019.
- 3) Bray, A; Cink, L.; Scott, M.; Wiacek, S. Ultimate Marvel. 1st Ed. U.K.; Dorling Kindersley; 2017.

2. Suggested Materials

Websites; <http://www.wikipedia.org/>

3. Other Resources

none

Section 7 Evaluation and Improvement of Course Implementation

1. Strategy for Course Effectiveness Evaluation by Students

There is an on-line evaluation form of course effectiveness. Students can evaluate each instructor and an overall course. Topics of evaluation include contents of the course, course management, teaching and assessment methods, overall satisfaction.

2. Strategy for Teaching Evaluation

Skill, knowledge, teaching strategy and learning media are evaluated by students and also co-course instructors.



3. Teaching Improvement

Instructors get together to review grading results, student's evaluation, teaching method, student learning, and student performance for self-improvement and course-improvement which will be applied for the next academic year.

4. Verification of Standard of Learning Outcome for the Course

The verification processes will be conducted by instructors based on student score, grading system and course evaluation results in that course for revision and verification standard LOs for the course.

5. Revision Process and Improvement Plan for Course Effectiveness

At the end of each academic year, instructors will collect the course's evaluation and information from TQF5 to propose to the program administrative committee for consideration to improve the course.



Appendix

Relations between the course and the General Education

Table 1 Relations between CLOs and MU-GE Module LOs (numbers in the table = Sub LOs)

SCGI 111	MU-GE LOs								
	MLO1	MLO2	MLO3	MLO4	MLO5	MLO6	MLO7	MLO8	MLO9
CLO1 Criticize and relate the scientific principles in a sci-fi movie.	1.1 1.3							8.1 8.3 8.4	
CLO2 Write a sci-fi story plot based on the characters created in class.	1.1 1.3 1.4			4.1				8.1 8.3 8.4	
CLO3 Work in a group to role-play a character for a short movie script.			3.1			6.4			
CLO4 Conform the scientific ethics and show good responsibility and work as a team.	1.2 1.3 1.4					6.2 6.4	7.1 7.2	8.1 8.2 8.4	9.1 9.2

Remarks :

- Each CLO should clearly correspond to the MU-GE LOs at the Sub LO level to show a clear connection and is shown in "Table 1".
- Describe the MU-GE LOs and Sub LOs in details in "[Table 2](#) LOs that the course is responsible for".

Table 2 LOs that the course is responsible for

MU-GE LOs	Sub LOs
MLO1 Create & construct an argument effectively as well as identify, critique and evaluate the logic & validity of arguments	1.1 Identify concepts related to the context of learned issues/topics
	1.2 Demonstrate ICT literacy: use appropriate technology to find, evaluate, and ethically used information
	1.3 Collect, analyze, synthesize data, & evaluate information and ideas from multiple sources relevant to issues/problems



	1.4 Synthesize information to arrive at logical reasoning
MLO2 Select & use techniques and methods to solve open-ended, ill-defined and multistep problems	2.1 Apply simple mathematical methods to the solution of 'real-world' problems
	2.2 Make judgement & decision through correct analysis, inferences, and evaluations on quantitative basis and multiple perspectives
MLO3 Acquire specific strategies & skills within a particular discipline and adapt them to a new problem or situation	3.1 Connect, synthesize and/or transform ideas or solutions within a particular framework
	3.2 Integrate alternative, divergent, or contradictory perspectives or ideas in the solution of a problem or question
MLO4 Create a novel or unique ideas, question, format, or product within a particular framework	4.1 Create an original explanation or solution to the issues/problems
	4.2 Articulate the rationale for & consequences of his/her solution-identify opportunities & risk
MLO6 Act autonomously with-in context of relationships to others, law, rules, codes, and values	6.2 Identify the national & global challenges associated with current economic, political, and social systems
	6.4 Work effectively in diverse team (and multi-cultural settings)
MLO7 Apply ethical frameworks or principles and consider their implications in his/her decisionmaking and interacting with others	7.1 Identify ethical issues and recognize different viewpoint and ideologies
	7.2 Guide & lead others
MLO8 Use a variety of means/ technologies to communicate effectively and purposefully; e.g., share information/ knowledge, express ideas, demonstrate or create individual & group product, etc.	8.1 Communicate/present ideas effectively both oral & written forms to appropriate audience, such as verbal discussion with peers, and written project reports
	8.2 Prepare a purposeful oral presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors
	8.3 Prepare written documents to express ideas/solutions using different writing technologies, and mixing texts, data, and images



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	8.4 Demonstrate competence in a second or additional language
MLO9 Collaborate and work effectively as part of a student group/team member to arrive at the team shared-goals in time	9.1 Collaborate effectively with others as a responsible team member to achieve team goals in time
	9.2 Interact with others respectfully, either as a team member or leader, to create a productive teamwork



MU-GE Module LOs: At the end of studying MU-GE Module, successful students will be able to

Competences	LOs:	Sub LOs:
1. Critical thinking & Analysis: Use various sources and methods to collect and manage data & information and make a logical judgement and decision to arrive at a solution or problem solving relevant to real-world issues/problems	1. Create & construct an argument effectively as well as identify, critique and evaluate the logic & validity of arguments	1. Identify concepts related to the context of learned issues/topics 2. Demonstrate ICT literacy: use appropriate technology to find, evaluate, and ethically used information 3. Collect, analyze, synthesize data, & evaluate information and ideas from multiple sources relevant to issues/problems 4. Synthesize information to arrive at logical reasoning
	2. Select & use techniques and methods to solve open-ended, ill-defined and multistep problems	1. Apply simple mathematical methods to the solution of 'real-world' problems 2. Make judgement & decision through correct analysis, inferences, and evaluations on quantitative basis and multiple perspectives 3. Apply concept of process management to solve problems
2. Creativity & Innovation: Show capability to initiate alternative/ new ways of thinking, doing things or solving problems to improve his/her or team solutions/ results by applying the evidence-based process management concepts	3. Acquire specific strategies & skills within a particular discipline and adapt them to a new problem or situation	1. Connect, synthesize and/or transform ideas or solutions within a particular framework 2. Integrate alternative, divergent, or contradictory perspectives or ideas in the solution of a problem or question
	4. Create a novel or unique ideas, question, format, or product within a particular framework	1. Create an original explanation or solution to the issues/problems 2. Articulate the rationale for & consequences of his/her solution- identify opportunities & risk 3. Implement innovation through process management approach
	5. Explore and situate oneself in a new physical environment and intellectual perspectives	1. Demonstrate cultural competencies and adaptabilities in different working environments 2. Resort to multi-dimensional settings and tools to acquire knowledge and skills relevant to the problems or situation at hand
3. Global perspectives & Ethics: Express one's own ideas, interact with others, guide or	6. act autonomously within context of relationships to others, law, rules, codes, and values	1. Demonstrate an understanding of the principles upon which sustainable ecosystems and societies are built 2. Identify the national & global challenges associated with current economic, political, and social systems 3. Exhibit characteristics of responsible citizenship



Competences	LOs:	Sub LOs:
lead team, as proper, as an ethically-engaged and responsible member of the society		4. Work effectively in diverse team (and multi-cultural settings)
	7. Apply ethical frameworks or principles and consider their implications in his/her decision-making and interacting with others	1. Identify ethical issues and recognize different viewpoint and ideologies 2. Guide & lead others 3. Apply principles of ethical leadership, collaborative engagement, and respect diversity
4. Communication: Communicate effectively and confidently using oral, visual, and written language	8. Use a variety of means/ technologies to communicate effectively and purposefully; e.g., share information/ knowledge, express ideas, demonstrate or create individual & group product, etc.	1. Communicate/present ideas effectively both oral & written forms to appropriate audience, such as verbal discussion with peers, and written project reports. 2. Prepare a purposeful oral presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors. 3. Prepare written documents to express ideas/solutions using different writing technologies, and mixing texts, data, and images. 4. Demonstrate competence in a second or additional language
5. Collaboration and Working with team: Collaborate and work effectively with team to arrive at team goals	9. Collaborate and work effectively as part of a student group/team member to arrive at the team shared-goals in time	1. Collaborate effectively with others as a responsible team member to achieve team goals in time 2. Interact with others respectfully, either as a team member or leader, to create a productive teamwork