



<b>Course Code and Course Title</b>	English: SCGI 282 Technology and Innovations in the Daily Life Thai: วิชาศน ๒๘๒ เทคโนโลยีและนวัตกรรมในชีวิตประจำวัน
<b>Number of Credits</b>	3 (3-0-6)
<b>Curriculum and Course Type</b>	Program of Study Bachelor's Degree Program in Science and Technology (International Program, Multidisciplinary Program) Course Type General Education
<b>Course Coordinator and Teaching Staff</b>	Dr Sitthivut Charoensutthivarakul (SC) Address: K618 Chalermphrakiat Building School of Bioinnovation and Bio-based Product Intelligence, Faculty of Science, Mahidol University Tel: 0-2201-5956 email: sitthivut.cha@mahidol.edu
<b>Semester/Year of Study</b>	Academic Year 2021 Second Semester (2/2021)
<b>Prerequisite</b>	None
<b>Co-requisite</b>	None
<b>Day/Time/Study Site Location</b>	Friday 13.30 -16.30 Faculty of Science, Mahidol University, Salaya Campus
<b>Date of Latest Revision</b>	December 2021

### Course Learning Outcomes (CLOs)

After successful completion of this course, students should be able to:

CLO1: Identify the roles of technology and innovation as well as the impact on human's life

CLO2: Examine at least one factor behind the success and failure of innovation development from local to global perspectives

CLO3: Explain concepts of innovation process development building on or extend the existing knowledge and the consequences for the society

CLO4: Propose an idea to improve the quality of life by using the extent of technological change and innovation support

CLO5: Demonstrate an ability to work in a team effectively to achieve team goals on time

CLO6: Deliver well-structured presentation to related audiences

### Objectives of Development / Revision

The objectives of this course are to provide students the knowledge, ideas, principles and soft skills concerning current technology and innovation and to promote students' thinking ability making them aware of the advantages and disadvantages of these technologies in order to properly utilise them for a better quality of life as well as promote students' teamworking and presentation skills.



School of Bioinnovation and Bio-based Product Intelligence (SCIN)  
 Program in Bioinnovation (International Program, Multidisciplinary Program)  
 Course: SCGI 282 Technology and Innovations in the Daily Life

Degree  Bachelor  Master  Doctoral  
 Faculty of Science

### Course Description

นิยามและความสำคัญของเทคโนโลยีและนวัตกรรม ผลกระทบของเทคโนโลยีและนวัตกรรมต่อชีวิตประจำวัน ตัวอย่างของเทคโนโลยีและนวัตกรรมทางการสื่อสารและการสร้างเครือข่าย การเรียนรู้ตลอดชีวิต การเงินส่วนบุคคล การดูแลสุขภาพส่วนบุคคล คมนาคมและพลังงาน และเทคโนโลยีสีเขียวที่ยั่งยืน

Definitions and importance of technology and innovations; the impact of technology and innovations on the daily life; examples of technology and innovations in communications and networking, lifelong learning, personal finance, personal healthcare, transports and energy, and sustainable green technology

### Credit Hours / Trimester

Theory (Hours)	Addition Class (Hours)	Laboratory/Field trip/ Internship (Hours)	Self-study (Hours)
45 Hours/Semester (3 Hours x 15 Weeks)	-	-	90 Hours/Semester (6 Hours x 15 Weeks)

### Number of Hours per Week for Individual Advice

1 hour per week by appointment at K618 or online via <https://mahidol.webex.com/meet/sittthivut.cha>

### Evaluation of the CLOs

Course Learning Outcomes	Measurement Method			Weight (%)
	Class Participation and In-class Discussion (%)	Written Exam (%)	Individual Class Assignments and Group Presentation (%)	
CLO1 Identify the roles of technology and innovation as well as the impact on human's life	-	4	6	10
CLO2 Examine at least one factor behind the success and failure of innovation development from local to global perspectives	5	8	7	20
CLO3 Explain concepts of innovation process development building on or extend the existing knowledge and the consequences for the society	5	8	7	20
CLO4 Propose an idea to improve the quality of life by using the extent of technological change and innovation support	5	10	10	25
CLO5 Demonstrate an ability to work in a team effectively to achieve team goals on time	5	-	10	15
CLO6 Deliver well-structured presentation to related audiences	-	-	10	10
<b>Total</b>	<b>20%</b>	<b>30%</b>	<b>50%</b>	<b>100%</b>



### Measurement and evaluation

After completion of the evaluation process each student is assigned a criterion-referenced grade (as shown in the table below). Evaluation and achievement will be justifying according to Faculty and University code, conducted by grading system of A, B+, B, C+, C, D and F. To pass this course, student must earn a grade of a least D.

Total Percentage of Evaluation	Below 50	50-54	55-59	60-64	65-69	70-74	75-79	80-100
Grade	F	D	D+	C	C+	B	B+	A

### Teaching Schedule 2<sup>nd</sup> Semester of Academic Year 2020

Week	Date	Topic	Hour		Instructor
			Lecture	Lab	
1	7 Jan	Course Introduction and orientation. What is technology and innovation?	3	0	SC (online)
2	14 Jan	Technology and innovation in agriculture	3	0	SC (online)
3	21 Jan	Technology and innovation in personal healthcare	3	0	SC (online)
4	28 Jan	Technology and innovation in personal healthcare	3	0	SC (online)
5	4 Feb	Technology and innovation in entertainment	3	0	SC (online)
6	11 Feb	Technology and innovation in energy	3	0	SC (online)
7	18 Feb	Technology and innovation in food products	3	0	SC (online)
8	25 Feb	Group Assignment	3	0	SC (online)
<b>Midterm examination</b>					
9	11 Mar	Technology and innovation in lifelong learning	3	0	SC (online)
10	18 Mar	Technology and innovation in lifelong learning	3	0	SC and invited speaker (online)
11	25 Mar	Technology and innovation in personal finance	3	0	SC (online)
12	1 Apr	Technology and innovation in transports	3	0	SC (online)
13	8 Apr	Technology and innovation in transports	3	0	SC and invited speaker (online)
14	15 Apr	No class (Songkran Day)	-	-	-
15	22 Apr	Group Assignment	3	0	SC (online)
16	29 Apr	Group Assignment	3	0	SC (online)
<b>Final examination</b>					

Online class: <https://mahidol.webex.com/meet/sitthivut.cha>

Onsite class: SC1-155