



School of Bioinnovation and Bio-based Product Intelligence (SCIN)
Program in Bioinnovation (International Program, Multidisciplinary Program)
Course: SCGI 192 Technology and Innovations in the Daily Life

Degree Bachelor Master Doctoral
Faculty of Science

Course Code and Course Title	English: SCGI 192 Technology and Innovations in the Daily Life Thai: วิชาศน ๑๙๒ เทคโนโลยีและนวัตกรรมในชีวิตประจำวัน
Number of Credits	3 (3-0-6)
Curriculum and Course Type	Program of Study Bachelor's Degree Program in Science and Technology (International Program, Multidisciplinary Program) Course Type General Education
Course Coordinator and Teaching Staff	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
Semester/Year of Study	Academic Year 2023 First Semester (1/2023)
Prerequisite	None
Co-requisite	None
Day/Time/Study Site Location	Wednesday 9.30 -12.30 Faculty of Science, Mahidol University, Salaya Campus
Date of Latest Revision	7 July 2023

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.



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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
Total	20%	30%	50%	100%



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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

Stats: (1/2022, No. student = 39); A = 41%, B+ = 27%, B = 5%, C+ = 10%, C = 3%
(2/2021, No. student = 70); A = 69%, B+ = 16%, B = 13%
(2/2020, No. student = 17); A = 18%, B+ = 18%, B = 29%, C+ = 24%, C = 12%



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Teaching Schedule 1st Semester of Academic Year 2023

Week	Date	Topic	Hour		Instructor
			Lecture	Lab	
1	9 Aug	Course Introduction and orientation. What is technology and innovation?	3	0	SC
2	16 Aug	Sustainable technology and innovations	3	0	SC
3	23 Aug	Technology and innovation in agriculture	3	0	SC
4	30 Aug	Technology and innovation in personal healthcare	3	0	SC
5	6 Sep	Technology and innovation in personal healthcare	3	0	SC
6	13 Sep	Technology and innovation in lifelong learning	3	0	SC
7	20 Sep	Technology and innovation in lifelong learning	3	0	SC and invited speaker (record)
8	27 Sep	Technology and innovation in energy	3	0	SC
Midterm examination (No exam for this course)					
9	11 Oct	No class – Commencement week	-	-	-
10	18 Oct	Technology and innovation in personal finance	3	0	SC
11	25 Oct	Technology and innovation in personal finance	3	0	SC
12	1 Nov	Technology and innovation in transports	3	0	SC
13	8 Nov	Technology and innovation (AI)	3	0	SC and invited speaker
14	15 Nov	No class – group assignment	-	-	-
15	22 Nov	Group Presentation I	3	0	SC
16	29 Nov	Group Presentation II	3	0	SC
Final examination					