



School of Bioinnovation and Bio-based Product Intelligence (SCIN)
 Program in Bioinnovation (International Program, Multidisciplinary Program)
 Course: SCIN 304 Strategic Management of Innovation

Degree Bachelor Master Doctoral
 Faculty of Science

Course Code and Course Title	English SCIN 304 Strategic Management of Innovation Thai วิชา ๓๐๔ การจัดการนวัตกรรมเชิงกลยุทธ์
Number of Credits	2 (2-0-4)
Curriculum and Course Type	Program of Study Bachelor's Degree Program in Science and Technology (International Program, Multidisciplinary Program) Course Type Specific Courses
Course Coordinator	Assoc. Prof. Sittiwat Lertsiri, Ph.D. Address: Department of Biotechnology, Faculty of Science, Mahidol University Tel: 0-2201-5301 email: Sittiwat.ler@mahidol.edu
Semester/Year of Study	Academic Year 2020 First Semester (1/2020) / Third Year
Prerequisite	None
Co-requisite	None
Day/Time/Study Site Location	Tuesday / 1.00PM-3.00PM / Online
Date of Latest Revision	27 July 2021

Course Learning Outcomes (CLOs)

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

1. Explore and manage the impact of innovation.
2. Evaluate and find the opportunities for the commercialization of innovation.
3. Apply their prior learning in various situation.
4. Know how to protect their innovation.

Course Description

Strategic management of innovation; types of innovation and patterns of change in technology and market; SWOT and PEST analysis; creating and implementing a product development strategy; design thinking; managing the new product development process and teams; strategic control and corporate governance; management of intellectual property.

Credit Hours / Trimester

Theory (Hours)	Addition Class (Hours)	Laboratory/Field trip/ Internship (Hours)	Self-study (Hours)
30 Hours/Semester (2 Hours x 14 Weeks)	None	None	60 Hours/Semester (4 Hours x 14 Weeks)

Number of Hours per Week for Individual Advice

1 hour / week or student requirement during prescribed date and time

Evaluation of the CLOs



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Course Learning Outcomes	Measurement Method			Weight (%)
	Class Attendance, Participation and Behavior in Class	Written Exam	Class Project	
CLO1 Explore and manage the effect of innovation.	5%	20%	-	25%
CLO2 Evaluate and find the opportunities for the commercialization of innovation.	5%	25%	-	30%
CLO3 Apply their prior learning in various situation.	5%	15%	5%	25%
CLO4 Know how to protect their innovation.	5%	15%		20%
Total	20%	75%	5%	100%

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	50-54.99	55-59.99	60-64.99	65-69.99	70-74.99	75-79.99	80-100
Grade	F	D	D+	C	C+	B	B+	A

Teaching staff:

Code	Name	Email
KS	Kanyaratt Supaibulwatana N.107, N. Bld. (MUSC-Phayathai)	Kanyaratt.sup@mahidol.ac.th
SL	Sittiwat Lertsiri BT.101, BT. Bld. (MUSC-Phayathai)	Sittiwat.ler@mahidol.edu



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Teaching Schedule 1st Semester of Academic Year 2021

Tuesday 1.00PM-3.00PM, Online

Week	Date	Topic	Number of Hours		Instructor
			Lecture	Laboratory	
1	10 Aug 2021	-Introduction -Definition of innovation	2	0	SL
2	17 Aug 2021	-Types and sources of innovation -Technology lifecycle	2	0	SL
3	24 Aug 2021	-Process of innovation	2	0	SL
4	31 Aug 2021	-Strategy in management of technology and innovation	2	0	SL
5	7 Sep 2021	-Product development: case study in food industry	2	0	SL
6	14 Sep 2021	-Drug discovery	2	0	SL
7	21 Sep 2021	-Intellectual property management	2	0	SL
8	28 Sep 2021	-Technology-based entrepreneurship -Setting up deep-tech startup -Business model canvas	2	0	SL/or invited lecturer
9	(4 to 8 Oct 2021)	Midterm Examination			
10	19 Oct 2021	-Open innovation	2	0	SL
11	26 Oct 2021	-Contribution of public entities to innovation and technology development	2	0	SL/or invited lecturer
12	2 Nov 2021	-Discussion: Business model canvas for startups	2	0	SL
13	9 Nov 2021	-Design thinking & Ecosystem for innovation	2	0	KS
14	16 Nov 2021	-Strategic control and good governance	2	0	KS
15	23 Nov 2021	-Case study and discussion	2	0	KS
16	(29 Nov to 9 Dec 2021)	Final Examination			