Course Code and Course Title	English SCIN 304 Strategic Management of Innovation Thai วทนว 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 2026 First Semester (1/2026) / Third Year
Prerequisite	None
Co-requisite	None
Day/Time/Study Site Location	Thursday / 9 -11 hr at SC1-158 Salaya campus (Regular time) **Some classes will be held at B400 Phayathai campus on Friday**
Date of Latest Revision	

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 15 Weeks)	None	None	60 Hours/Semester (4 Hours x 15 Weeks)

Number of Hours per Week for Individual Advice

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

Evaluation of the CLOs

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
SL	Course coordinator Assoc. Prof. Sittiwat Lertsiri BT.101, BT. Bld. (MUSC-Phayathai)	Sittiwat.ler@mahidol.edu
KS	Assoc. Prof. Kanyaratt Supaibulwatana N.107, N. Bld. (MUSC-Phayathai)	Kanyaratt.sup@mahidol.ac.th
TT	Dr. Thantawat Theeranan BT.110, N. BT. Bld. (MUSC-Phayathai)	
DP	Assoc. Prof. Duanghathai Pentrakoon Faculty of Science, Chulalongkorn University	
MB	Dr. Magnus Bergkvist	
NN	Assoc. Prof. Nuttawee Niamsiri BT.103, BT. Bld. (MUSC-Phayathai)	

Teaching Schedule: 1st Semester of Academic Year 2026

Week	Date	Topic	Number of Hours		Instructor
			Lecture	Laboratory	
1	6 Aug 2026 (Thursday) (9-11 hr)	-Introduction -Definition of innovation	2	0	SL
2	13 Aug 2026 (Thursday) (9-11 hr)	-Types and sources of innovation -Technology lifecycle	2	0	SL
3	20 Aug 2026 (Thursday) (9-11 hr)	-Process of innovation	2	0	SL
4	27 Aug 2026 (Thursday) (9-11 hr)	No class			
5	3 Sep 2026 (Thursday) (9-11 hr)	-Strategy in management of technology and innovation	2	0	SL
6	10 Sep 2026 (Thursday) (9-11 hr)	-Product development: case study in food industry	2	0	SL
7	17 Sep 2026 (Thursday) (9-11 hr)	-Drug discovery	2	0	TT
8	24 Sep 2026 (Thursday) (9-11 hr)	No class			
9	**28 Sep -2 Oct 2026**	**Midterm exam week**			
10	9 Oct 2026 (**Friday**) (**9-11 hr, B400 Phayathai**)	-Intellectual property management	2	0	DP
11	15 Oct 2026 (Thursday) (9-11 hr)	-Setting up deep-tech startup -Business model canvas -Open innovation	2	0	SL
12	22 Oct 2026 (Thursday) (9-11 hr)	Progress update: start up project	2	0	SL
13	30 Oct 2026 (**Friday**) **(9-11 hr, B400 Phayathai)**	-Technology-based entrepreneurship	2	0	MB
14	6 Nov 2026 (**Friday**) **(9-11 hr, B400 Phayathai)**	-Discussion: Innovation driven enterprise	2	0	MB
15	12 Nov 2026 (Thursday) (9-11 hr)	-Design thinking & Ecosystem for innovation	2	0	KS
15	13 Nov 2026 (**Friday**) **(9-11 hr, B400 Phayathai)**	-Contribution of public entities to innovation and technology development	2	0	NN
16	19 Nov 2025 (Thursday) (9-11 hr)	-Strategic control and good governance	2	0	KS
17	26 Nov 2025 (Thursday) (9-11 hr)	-Branding: Case study and discussion	2	0	KS
18	**Nov 30-11 Dec 2026**	**Final exam week**			