



Course Code and Course Title	English SCIN 203 Internship for Innovation and Entrepreneurship I Thai วิชา ๒๐๓ การฝึกปฏิบัติงาน และการศึกษาดูงานเสริมสร้างประสบการณ์ทางนวัตกรรม และวิสาหกิจ ๑
Number of Credits	3 (0-9-3)
Curriculum and Course Type	Program of Bachelor's Degree Program in Science and Technology (International Program, Multidisciplinary Program) Course Type Specific Courses
Course Coordinator	Assoc. Prof. Kanyaratt Supaibulwatana, Ph.D. Address: B.400 Rm., 4 th Fl., B. Bld. Faculty of Science, Mahidol University, 272 Rama VI Road, Ratchathewi, Bangkok 10400 Tel. 02-201-5470; e-mail: kanyaratt.sup@mahidol.ac.th
Semester/Year of Study	Academic Year 2022 First Semester (1/2022) / Third Year
Prerequisite	None
Co-requisite	None
Day/Time/Study Site Location	- Wednesday / 13.00 – 16.00 h onsite (online, occasionally) - Date & times (special training for employability and future skills) as mentioned in the course schedule, as condition of pre-course schedule. Appointment for class is possibly modified (TBA). Faculty of Science, Mahidol University, Payathai Campus
Date of Latest Revision	3 July 2023

Course Learning Outcomes (CLOs)

After successful completion of this course, students are able to

1. Explain the concept of innovation and entrepreneurship.
2. Understand the useful of science and technology in creating of innovation and understand the production and problem that happened.
3. Working with team and inspect activities from the best practice, failure or mistake of team work.
4. Assess the benefits, opportunities, and challenges of innovator in professional way. The employability skills and future skills would be emphasized.
5. Practice skills of critical thinking, create and analyze question, solve problem, discussion and presentation.

Course Description

Principles and process of field study and field professional practicum on management of public R&D organizations and private enterprises; invention and quality product development; innovation



management of community enterprise and community business; entrepreneurship effect on community, economic and public society; evaluation; hold a seminar to report the results of internship program.

Credit Hours / Trimester

Theory (Hours)	Addition Class (Hours)	Laboratory/Field trip/ Internship/Conference (Hours)	Self-study (Hours)
-	Onside, hybrid and online webinar (occasionally)	135 Hours/Semester (9 Hours x 15 Weeks)	45 Hours/Semester (3 Hours x 15 Weeks)

Number of Hours per Week for Individual Advice

3 hours per 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 / tests	Class Project	
CLO1 Experience and understand real working situation from the field trip / industrial plant studies	15%	-	15%	30%
CLO2 Analyze cases concerning creative thinking and innovation from training and workshop	25%	15%	10%	50%
CLO3 Collaboratively conduct projects on topics of field trip/internship	10%	-	10%	20%
Total	70%	-	30%	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



School of Bioinnovation and Bio-based Product Intelligence (SCIN)
Program in Bioinnovation (International Program, Multidisciplinary Program)
Course: SCIN 203 Internship for Innovation and Entrepreneurship I

Degree Bachelor Master Doctoral
Faculty of Science

Teaching staff & Coordinator:

Code	Name	Email
KS	Assoc.Prof. Dr. Kanyaratt Supaibulwatana (Course Coordinator) N.107, N. Bld. (MUSC-Payathai)	Kanyaratt.sup@mahidol.ac.th
AR	Assist.Prof. Dr. Adisak Romsang K.610, K. Bld. (MUSC-Payathai)	adisak.rom@mahidol.ac.th
KB	Mr. Kanchit Boonruang Stang Mongkolsuk Library and Information Division	kanchit.boo@mahidol.ac.th
SA	Assist.Prof. Dr. Somkid Amornsamankul M.204/5, M. Bld. (MUSC-Payathai)	somkid.amo@mahidol.ac.th
SU	Assist.Prof. Dr. Suntaree Unhapipat B.205/1, B. Bld. (MUSC-Payathai)	suntaree.unh@mahidol.ac.th
WL	Dr. Wasakorn Laesanklang B.203/1, B. Bld. (MUSC-Payathai)	wasakorn.lae@mahidol.ac.th
WT	Assoc.Prof. Dr. Wannapong Triampo R.3/1, SC. Bld. (MUSC-Salaya)	Wannapong.tri@mahidol.ac.th
NS	Ms. Nathayanan Somphod (B.Sc. program coordinator)	nathayanan.som@mahidol.ac.th
BH	Banpot Horbanluekit Invited Speakers from NSTDA	
	Invited Speakers from private company and other organizations	



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No.	Date	Topic	Number of Hours		Instructor
			Lecture / Conference	Lab./ Workshop	
	20 Jul to 3 Aug 2023	Part 1: Training and Workshop	Lectures and Workshops		
1	10 Jul 2023	10.00-12.00 / 13.30-15.30 - Introduction and class assignment of internship program - Specification and skills require for field training and working experiences	5	-	KS
2	11 Jul 2023	10.00-12.00 / 13.30-15.30 Important of PDPA	2	3	KS
3	12 Jul 2023	10.00-12.00 Using Spreadsheet Functions to manage data	2	-	SA
4		13.30-15.30 Essential Descriptive Statistics	2	-	SU
5	13 Jul 2023	10.00-12.00 Essential Inferential Statistics	2	-	SU
6		13.30-15.30 Fundamental and basic of optimization problems	2	-	WL
7	14 Jul 2023	10.00-12.00 Using Excel solver to solve optimization problems	2	-	WL
8		13.30-15.30 Introduction to Big Data	2	-	SA
9	17 Jul 2023	09.00-12.00 / 13.30-16.30 Occupational Health and Safety – OHS	6	-	AR
10	18 Jul 2023	09.00-12.00 / 13.30-16.30 Occupational Health and Safety – OHS	6	-	AR
11	19 Jul 2023	10.00-12.00 / 13.30-15.30 Industrial innovation concept (TIME): A Management tools for formulating of innovation-driven corporate strategies, analyzing market demands, and evaluating enterprise technology capabilities.	5	-	BH



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			Lecture / Conference	Lab./ Workshop	
	20 Jul to 3 Aug 2023	Part 1: Training and Workshop	Lectures and Workshops		
12	20 Jul 2023	10.00-12.00 Introduction of SPACE_F Program and Startup company	-	2	KS
13	21 Jul 2023	10.00-12.00 / 13.30-15.30 Design of production structures to suit market demands, concept of process standards (standardization) and production efficiency indicators (Quality cost Delivery).	5	-	BH
14	3 Aug 2023	09.00-12.00 / 13.30-16.30 Design thinking and digital fabrication 'Future skills and trend of startup'	6	-	WT
15	TBA	Significant concern of Plagiarism and how check plagiarism with "Turn It In" program	2	-	KB
	Sep - Nov 2023	Part 2: Field Trip & Internship	Field Trip & Internship		
16	TBA Wednesday 13.00 – 16.00 h	Field Trip 1	0	3	KS
		Conclusion and discussion – Lesson Learn from Field trip 1	1	0	KS
17	TBA Wednesday 13.00 – 16.00 h	Field trips 2	0	3	KS
		Conclusion and discussion – Lesson Learn from Field trip 2	1	0	KS
18	TBA Wednesday 13.00 – 16.00 h	Field trips 3	0	3	KS
		Conclusion and discussion – Lesson Learn from Field trip 3	1	0	KS
19	TBA	Internship Practice	0	12	KS
20	TBA	Conclusion of the training, workshop and internship program	3	0	KS
		Total	56	26	