

SCIN 263 Basic Laboratory Skills for Biosciences 1 (0-3-1)

Lesson Plan (Tentative)

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
1 06/01/2025	Doing good science and Ethics: - Housekeeping and Labeling - Sample Handling and Storage - Flow chart and Lab notebook		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Sitthivut Charoensutthivarakul Wannapong Triampo
2 13/01/2025	- Dealing with the Data & Report - Units of Measurement - Errors, precision, and accuracy		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Sitthivut Charoensutthivarakul
3 20/01/2025	Introduction to Laboratory Safety in Bioscience Laboratory		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Adisak Romsang
4 27/01/2025	Chemical safety and hazardous waste management		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Adisak Romsang
5 3/02/2025	Common Equipment in Bioscience I - Balances - pH meters & Hot/Stir plate - Centrifuge - Vortex		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Teerarat Likitwattanasade
6 10/02/2025	Common Equipment in Bioscience II - Autoclave		3	Interactive Lecture Group Discussion Demonstration	Adisak Romsang Teerarat Likitwattanasade

Teaching Period	Topics/Details	Number of hours		Methods:	Lecturer
		Theory*	Practice**	Teaching Media	
	<ul style="list-style-type: none"> - Biosafety cabinet - Chemical fume hood - Incubator shaker 			Case Study Practice	
7 17/02/2025	Microscopy and Image Analysis		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Stefan Schreier Wannapong Triampo
8 24/02/2025	MIDTERM				
9 10/03/2025	Instrumental Analysis, Standard Curve, and Data Calibration		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Wannapong Triampo Darapond Triampo
10 17/03/2025	Spectrophotometer Theoretical Principle		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Wannapong Triampo Darapond Triampo
11 24/03/2025	Case study <ul style="list-style-type: none"> - Dilution: The solution series - Spectrophotometer 		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Darapond Triampo Wannapong Triampo
12 31/03/2025	Basic Excel for bioscience <ul style="list-style-type: none"> - Graph - Commonly used functions - Trend line, equation - Labelling, legend - Graph, figure and captions in report 		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Darapond Triampo Wannapong Triampo
13 7/04/2025	Bioscience Self-study & Assignment		3		Kanyaratt Supaibulwatana
14 14/04/2025	Bioscience Self-study & Assignment		3		Kanyaratt Supaibulwatana

Teaching Period	Topics/Details	Number of hours		Methods: Teaching Media	Lecturer
		Theory*	Practice**		
15 21/04/2025	Integrated Problem through bioscience-based PBL		3	Interactive Lecture Group Discussion Demonstration Case Study Practice	Darapond Triampo Wannapong Triampo Stefan Schreier Kanyaratt Supaibulwatana
16 28/04/2025	FINAL				
	Total		42		

Measurement and Evaluation

Measurement and evaluation will be conducted according to Mahidol University supervision and as Faculty of Science announcement. Evaluation and achievement will be justified according to Faculty and University code, conducted by grading system of A, B+, B, C+, C, D+, D and F as follows

Range	Symbol
80-100	A
75-79	B+
70-74	B
65-69	C+
60-64	C
55-59	D+
50-54	D
0-49	F