



School of Bioinnovation and Bio-based Product Intelligence (SCIN)

Degree ☒ Bachelor ☐ Master ☐ Doctoral

Program in Bioinnovation (International Program)

Faculty of Science

Course: SCIN 261 Fundamental Biophysics

1. Teaching Schedule 1st Semester of Academic Year 2026

Wednesday, 10.30-12.30 Hr., at Sc1-154 room, Faculty of Science, Mahidol University, Salaya campus

Week	Date	Topic	Number of Hours			Teaching methods/ multimedia	Instructor
			Lecture	Laboratory	Self-study		
1	Aug 5, 2026	Introduction of course discipline and class orientation. What is Biophysics? What is simulation?	2	0	4	Group discussion active lecture	Asst. Prof. Narin Nuttavut, Ph.D.
2	Aug 19, 2026	Fundamental in Biophysics: Measurement and experimentation	2	0	4		
3	Aug 26, 2026	Fundamental in Biophysics: Mechanic I	2	0	4		
4	Sep 2, 2026	Fundamental in Biophysics: Mechanic II	2	0	4		
5	Sep 9, 2026	Fundamental in Biophysics: Mechanic III	2	0	4		
6	Sep 16, 2026	Fundamental in Biophysics: Thermodynamics I	2	0	4		
7	Sep 23, 2026	Fundamental in Biophysics: Thermodynamics II	2	0	4		
Midterm Examination (Sep 28 to Oct 2, 2026)							
8	Oct 7, 2026	Fundamental in Biophysics: Electromagnetism	2	0	4	Group discussion active lecture	Asst. Prof. Narin Nuttavut, Ph.D.
9	Oct 14, 2026	Physics Principles of biological molecules, living system and life processes I.	2	0	4		
10	Oct 21, 2026	Physics Principles of biological molecules, living system and life processes II.	2	0	4		
11	Oct 28, 2026	Modelling	2	0	4		
12	Nov 4, 2026	Mathematical, statistical and analytical approaches for quantitative study of living system and life processes.	2	0	4		
13	Nov 11, 2026	Mathematical, statistical and analytical approaches for quantitative study of living system and life processes.	2	0	4	Active lecture, Group discussion	
14	Nov 18, 2026	Biophysics and Applications I.	2	0	4		
15	Nov 25, 2026	Biophysics and Applications II.	2	0	4		
Final Examination (Nov 30 to Dec 11, 2026)							
Total			30	0	60		



Plan for Assessment of Expected Course-Level Learning Outcomes (CLOs)

2.1 Measurement and Evaluation of learning achievement

A. Formative Assessment

Weekly In-class assignment

Laboratory/practice report

Gamification

B. Summative Assessment

(1) Tool and weight for measurement and evaluation

Learning Outcomes	Evaluation Method*			Weight (Percentage)
	Examination	Group Work	Individual Work Presentation	
CLO1	10	5	10	25
CLO2	5	5	10	20
CLO3	-	5	10	15
CLO4	-	5	10	15
CLO5	5	10	10	25
รวม	20	30	50	100

(2) Grading Rules

A (Excellent): 80-100%

B+ (Very Good): 75-79%

B (Good): 70-74%

C+ (High Satisfactory): 65-69%

C (Satisfactory): 60-64%

D+ (Pass): 55-59%

D (Minimal Pass): 50-54%

F (Fail): below 50%

(3) Measurement and Evaluation

1. Process-based Evaluation and Technical Proficiency (30%)

2. Evaluation of the AI-assisted coding process (30%)

3. Critical Essay/Presentation (15%)



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4. Data analytics and innovative prototyping (35%)

2.2 Re-examination (if the course allows any.)

Students who receive a grade of F may appeal the grade and request a re-test by submitting a form through the Academic Affairs Office.

3. Students' Appeal

Students who disagree with the grade or the evaluation can visit the Academic Affairs Office to fill out an Appeal/Re-test Form within 5 days of the official grade announcement.