Program for Precision Health and Intelligent Medicine, Graduate School of Advanced Technology, National Taiwan University Degree Regulations for the Ph.D. Program

I. Duration of Study: The minimum and maximum duration of study is 2 to 7 years.

II. Ph.D. Students (Regular Track):

i. A minimum of 15 credits is required for graduation (excluding Seminar, Special Project, Academic Ethics, and Internship courses).

ii. At least 9 credits of professional electives are required from the program (courses subject to advisor approval).

III. Direct-entry Ph.D. Students:

i. A minimum of 27 credits is required for graduation (excluding Seminar, Special Project, Academic Ethics, and Internship courses).

ii. At least 9 credits of professional electives are required from the program (courses subject to advisor approval).

iii. At least 15 credits of professional electives are required from the program (courses subject to advisor approval). (Applicable to students admitted from Spring 2025 onward)

IV. Online learning of Academic Ethics is a required course and does not count toward graduation credits.

V. Credits from undergraduate courses do not fulfill the minimum graduation credit requirements.

VI. Proportion of English-Taught Courses:

i. For those enrolled in Fall 2022 or Spring 2023, at least 35% of the minimum graduation credits must consist of English-taught courses; Ph.D. Students (Regular Track) must complete at least 5 credits, and Direct-entry Ph.D. Students must complete at least 9 credits.

ii. For students admitted in Fall 2023, Spring 2024, Fall 2024, or Spring 2025, at least 50% of the minimum graduation credits must consist of English-taught courses; Ph.D. Students (Regular Track) must complete at least 8 credits, and Direct-entry Ph.D. Students must complete at least 14 credits.

iii. For students admitted in Fall 2025, Spring 2026, Fall 2026, or Spring 2027, at least 55% of the minimum graduation credits must consist of English-taught courses; Ph.D. Students (Regular Track) must complete at least 8 credits, and Direct-entry Ph.D. Students must complete at least 15 credits.

VII. For any issues not covered, please refer to the regulations of Graduate School of Advanced Technology.

Required Curriculum

必修課程 Required Curriculum		
課程名稱 Course Title	**學分 Credit Points**	**備註 Note**
研發實習 Internship	3	必修，一學期 1 semester

專題討論 Seminar	1	必修，四學期 4 semesters
專題研究 Special Project	1	必修，在學必修 Every semester
博士論文 Thesis	0	必修，畢業學期當修 Semester of graduation
學術倫理 Academic Ethics	0	必修，不及格者不得申請學位考試 Students who fail the Academic Ethics are Not eligible to apply Defense
精準健康概論 Introduction to Precision Health	**2**	**必修，一學期** 1 semester

Required Competency I

必選修課程 I（三選一） Required Competency I (Choose one out of three)		
學位 Degree	**課程名稱 Course Title**	**學分 Credit Points**
碩博 Ms. Ph.D.	機器學習的生醫應用 Machine Learning in Biomedical Applications	3
	醫學影像處理 Medical Image Processing	3
	數位生醫訊號處理 Digital Engineering Signal and Systems	3

Required Competency II

必選修課程 II（二選一） Required Competency II (Choose one out of two)		
學位 Degree	**課程名稱 Course Title**	**學分 Credit Points**
碩博 Ms. Ph.D.	醫療器材臨床試驗 Medical Device Clinical Trials	2
	醫療器材商品化 Medical Device Commercialization and Entrepreneurship	2

Elective Curriculum

選修課程 Elective Curriculum		
學位 Degree	**課程名稱 Course Title**	**學分 Credit Points**
碩博 Ms. Ph.D.	Transcription addiction and Cancer	1
	DNA repair and DNA binders anti-tumoral drugs	1

選修課程 Elective Curriculum		
學位 Degree	**課程名稱 Course Title**	**學分 Credit Points**
碩博 Ms. Ph.D.	超穎介面與生醫應用 Metasurfaces and biomedical applications	2
	衍射光學與全像影像術 Holographic Imaging and Diffractive Optics	2
	醫學影像重建與分析 Medical Image Reconstruction and Analysis	2
	即時系統 Real-times Systems	2
	分子醫學特論 Special Topics in Molecular Medicine	2
	病毒與免疫治療於臨床上的應用和策略 Clinical application and strategy in cancer virotherapy and immunotherapy	2
	微生物與精準健康	2
	臺灣臨床試驗與精準醫療	2
	從精準醫學到精準健康：臺灣的展望	2
	精準腫瘤醫療與體外檢驗	2
	醫用超音波原理	2
	癌症免疫治療標誌開發特論	2
	奈米材料應用於生物醫學	2
	精準腫瘤醫學與組學技術	2
	精準健康大數據專題討論	2
	Omics data analysis	2
	雷射在臨床之應用	2
	智慧感測系統設計 Design for Smart Sensing Systems	3
	高效能巨量資料與人工智慧系統 High-Performance Big Data and Artificial Intelligence Systems	3
	健康宇宙之創新科技策略 Technology Innovation Strategy to HealthVerse	3

選修課程 Elective Curriculum		
學位 Degree	**課程名稱 Course Title**	**學分 Credit Points**
	精準醫療物聯網	3
	光學繞射造影方法與應用	3
	生物輸送	3
	生物力學分析	3
	癌症生物技術與實作 Biotechnology in Cancer Research with Laboratory	3

* 課程非於每學年開授，請依本校課程資訊與選課系統公告規劃選課。
Please refer to the current course catalog for the actual course offerings each semester.