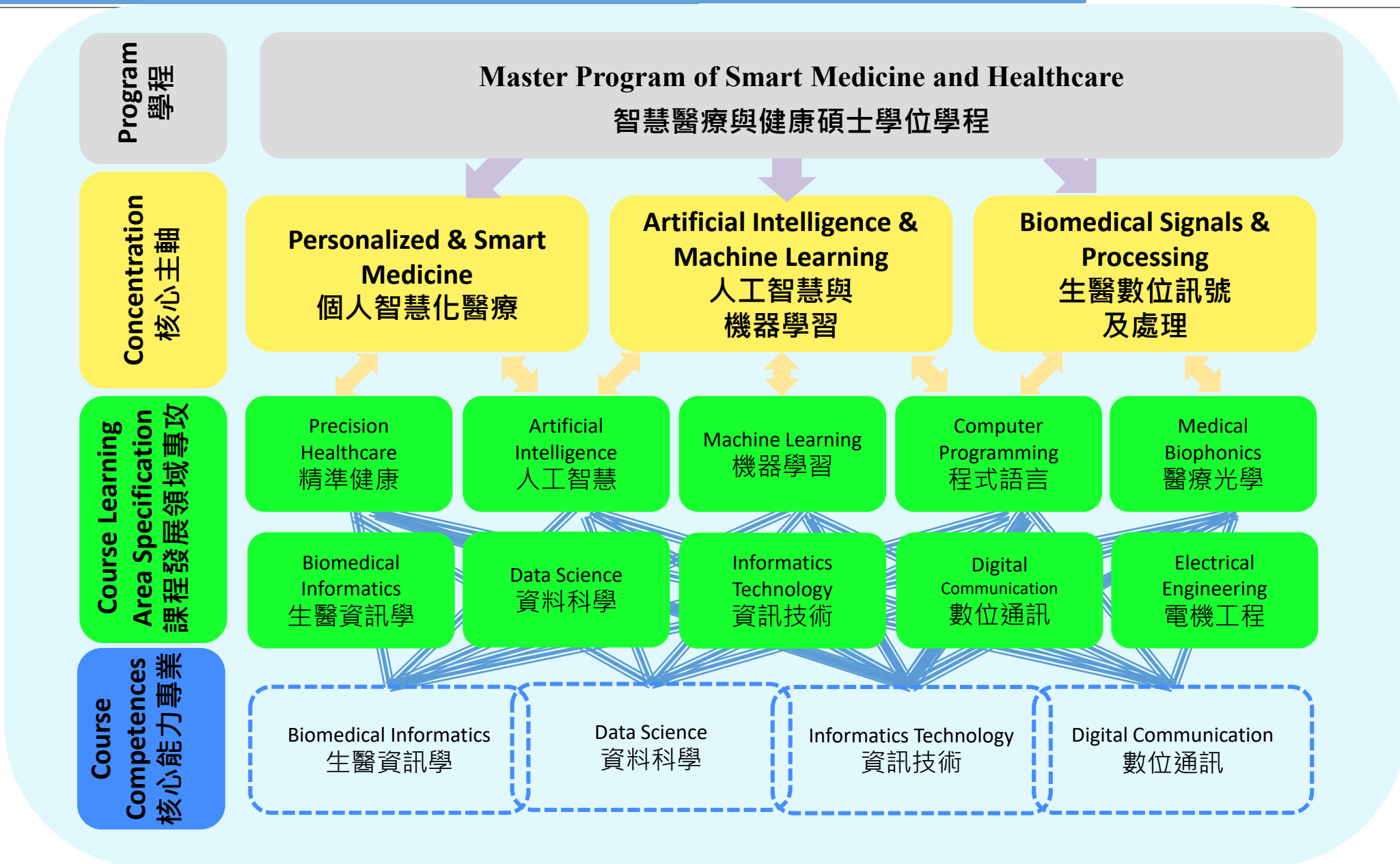
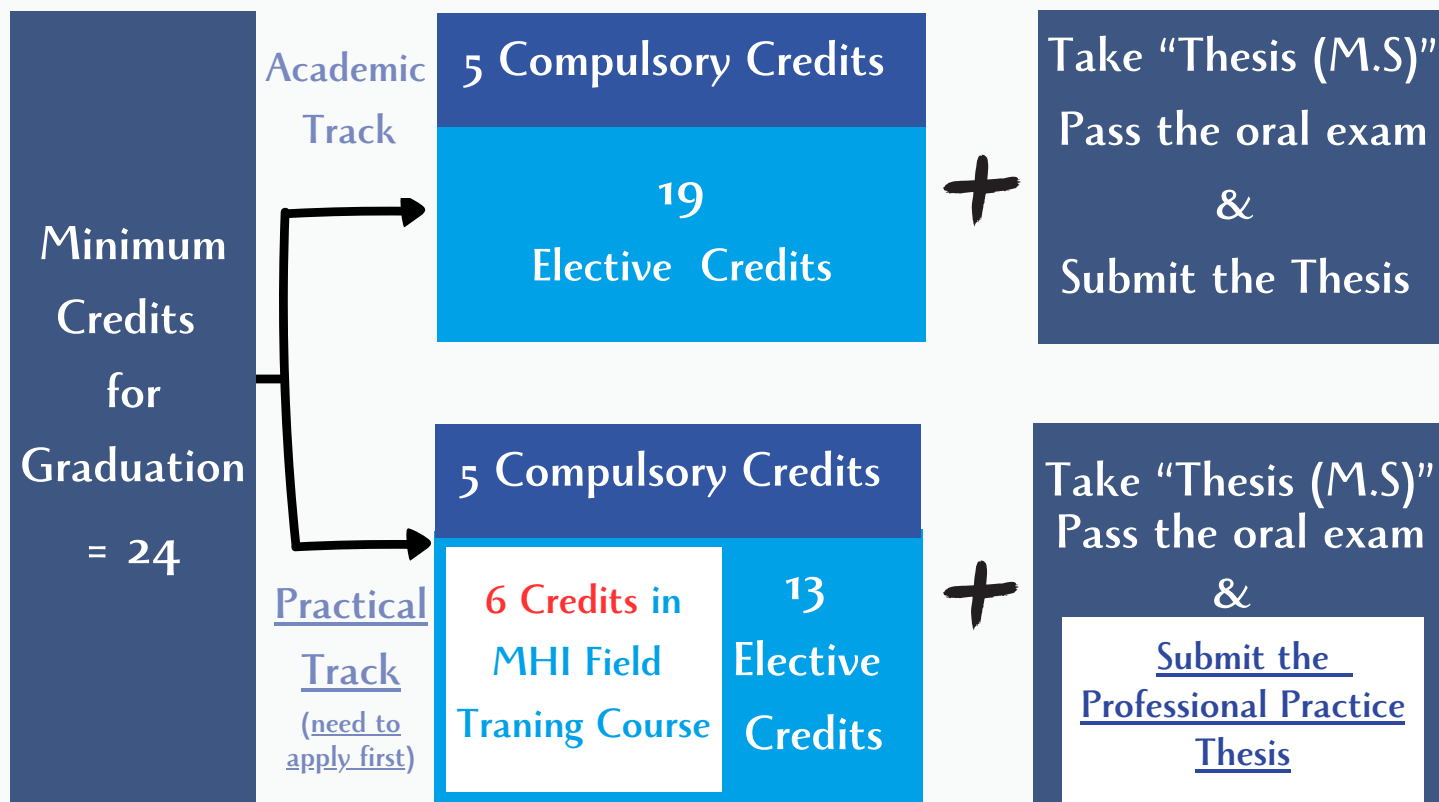


學位學程課程規劃架構圖



Curriculum List of

Master's Program in Smart Medicine and Health Informatics



*Note: If you wish to count courses offered by other departments toward your graduation credits, please complete and submit the required [form](#) to the office. Note that the Smart MHI program will recognize a maximum of **9** credits from these courses.

P: Personalized and Smart Medicine
A: Artificial Intelligence and Machine Learning
B: Biomedical Signal and Processing

Compulsory Course (PAB)		Credits	Semester
<u>Smart Medicine and Health Informatics</u> 智慧醫療與健康資訊學	Che Lin	2	Spring
<u>Seminar in MHI</u> 專題討論	Che Lin	1	Spring
<u>Research Training</u> 專題研究	Advisors	1 / 1	Fall / Spring
<u>Thesis (M.S.)</u> 碩士論文	Advisors	0	Fall / Spring (Only Seniors Can Enroll)



Elective Course (PAB)		Credits	Semester
<u>MHI Field Training I / II</u> 健康資學資訊場域見習 I / II	Che Lin	3	Fall / Spring
Biological Computing (C1) 生物計算學	Yufeng Jane Tseng	2	Fall
<u>Bioinformatics</u> 生物資訊學	Takeshi Itoh	3	Fall
<u>Genetics and Genomics</u> 遺傳學與基因體學	Chih-Wei Tung	3	Fall
<u>Python for Biologist</u> Python 在生物學的應用	Hung-Yi Wang	2	Spring
<u>Practical Bioinformatics for Laboratory Scientists</u> 實驗科學的實用生物資訊學	Takeshi Itoh	2	Spring
<u>Problem-Solving Programming Method for Bioinformatics</u> 生物資訊問題導向程式設計方法	Takeshi Itoh	1	Spring
<u>Basic Single-cell RNAseq Data Analysis</u> 基礎單細胞定序資料分析實作		3	Spring

Elective Course (P)		Credits	Semester
<u>Introduction of Biomedical Informatics</u> 生醫資訊學導論	Yufeng Jane Tseng	3	Fall
<u>Human Anatomy and Physiology</u> 人體結構與生命現象	Yun-Ru Huang	3	Fall
<u>Health Technology: Value Assessment and Access</u> 健康科技：價值評估與准入	Allen Lai Yu-Hung	1	Fall
<u>Bioinformatics</u> 生物資訊學 (English textbook, conduct in Chinese)	Yufeng Jane Tseng	3	Spring
<u>Design for Well-being: Redefining Health from a Multi-dimensional Perspective</u> 幸福感設計：重新定義健康的多元觀點	Chien-Wen Yuan	3	Spring



Elective Course (A)		Credits	Semester
<u>Python Programming for Intelligent Medicine</u> 智慧醫療程式設計	Shang-Tse Chen	3	Fall
<u>Blockchain and Big Data</u> 區塊鏈與數據分析	Shih-Wei Liao	3	Fall (offer once every 2 years)
<u>Big Data System</u> 巨量資料系統	Shih-Wei Liao	3	Fall (offer once every 2 years)
<u>Application of Big Data System</u> 巨量資料系統之應用	Shih-Wei Liao	3	Spring
<u>Artificial Intelligence and Intelligent Medicine</u> 人工智慧與智慧醫療	Che - Lin	3	Spring
Machine Learning 機器學習	Tzu-Yu (Joyce) Liu / Hung-Yi Lee	4	Fall / Spring
Elective Course (B)		Credits	Semester
<u>Biomedical Signal Investigation</u> 生醫信號研究方法	Wen-Chau Wu	3	Fall
<u>Biomedical Data Mining</u> 生醫資料探勘	Chien- Yu Chen	3	Fall
<u>Cellular and Tissue Biomechanics and Application in Medical Fields</u> 細胞與組織力學與醫學運用	Yu-Chun Lin	3	Fall
Precision Medical Imaging: Techniques and Applications 精準醫學影像技術與應用	Wen-Chau Wu	3	Spring

* Recommended for those new to Python to take the 'Computer Programming in Python' General Educational Course. It provides the foundation for other advanced courses in our program.

** Please note that it is not one of the courses in the Smart MHI Program, and credits do not contribute to graduation requirements.

Course for Non-Computer Science Background (**Not Counted in Graduation Credits)		Credits	Semester
<u>Computer Programming in Python</u> Pythont 程式設計	Lin Tse-Yu	3	Fall / Spring