National Taiwan University
Master Program in Integrated Circuit Design and Automation
Degree Regulations

1. Study period: 1 to 4 years
2. Minimum graduation credits: 21 credits. Thesis, Special Topics, and Seminar are not included.
3. At least 12 credits of professional electives are required from the program (courses are approved by an advisor)
4. Online learning of Academic Ethics is a required course, and does not count toward graduation credits.
5. The credits of undergraduate courses do not count toward the minimum credits for graduation requirements.
6. Those who enrolled in the 2022 academic year, 35% of English-taught courses should be registered for graduation requirements.
7. For any matters not covered, please refer to the regulations of Graduate School of Advanced Technology.

- **Required Curriculum**

Course Title	Credit(s)	Note
Internship	3	1 semester
Seminar	1	4 semesters
Special Topics	1	Every semester
Master Thesis	0	Semester of graduation
Academic Ethics	0	Students who fail the Academic Ethics are Not eligible to apply Defense

- **Required Competency (choose one)**

Level	Course Title	Credit(s)
Graduate	電腦輔助積體電路系統設計 Computer-aided VLSI System Design	3
Graduate	類比積體電路 Analog Integrated Circuit	3
Graduate	演算法 Algorithms	3

- **Elective Curriculum**

Level	Course Title	Credit(s)
Graduate	數位訊號處理架構設計 Digital Signal Processing in VLSI Design	3
Graduate	高等積體電路設計 Advanced Integrated Circuit Design	3
Graduate	數位視訊技術 Digital video technology	3
Graduate	系統晶片設計實驗 SoC Design Experiment	3
Graduate	通信數位積體電路設計 Digital Communication Integrated Circuits Design	3
Graduate	人工智慧架構與系統設計 Computing Architecture and System design for AI Machine Learning	3
Graduate	高等類比積體電路 Advanced Analog Integrated Circuits	3
Graduate	鎖相迴路原理及應用 Theory and Application of Phase-locked Loop	3
Graduate	電力電子學 Power Electronics	3
Graduate	混合訊號積體電路設計 Mixed-Signal Integrated Circuit Design	3
Graduate	通訊積體電路設計 Design of Communication Integrated Circuits	3
Graduate	高等數位系統設計 Advanced Digital System Design	3
Graduate	射頻積體電路設計 Rf Integrated Circuit Design	3
Graduate	高速介面積體電路設計 High-speed interface bulk circuit design	3
Graduate	生醫電子電路設計 Bioelectronics Circuit Design	3
Graduate	系統晶片驗證 Soc Verification	3
Graduate	軟硬體共同設計 Hardware Software Codesign	3
Graduate	積體電路測試 VLSI Testing	3
Graduate	積體電路實體設計 VLSI Physical Design	3

Graduate	積體電路系統測試 Integrated Circuit System Testing	3
Graduate	邏輯合成與驗證 Logic Synthesis and Verification	3
Graduate	晶片系統封裝 Chip System Package	3
Graduate	電腦輔助分析與最佳化 Computer Aided Analysis & Optimization of Integrated Circuit	3
Graduate	應用數學邏輯特論 Special Treatise on Applied Mathematical Logic	3
Graduate	高階合成技術於應用加速 Special Project on Application Acceleration with High-Level-Synthesis	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.※