Institute of Electronics,Ph.D. Program

Academic Year 2025

Mini. Term of Study	Two Years
Minimum Credits	18 Credits
Minimum Credits for Direct-Entrance Ph.D.	24 Credits
Curriculum and Regulations	I. Common Required Electives Courses for the Solid State Electronics Group and the Circuits and Systems Group： 1. Ph.D. students of the 1st and 2nd years, course selection must be approved by the Director of the Institute or advising professor. 2. A Ph.D. student must complete at least 18 credits of specialty courses (excluding Seminar courses and Graduate Research) before graduation. These credits must include at least nine (9) credits of required courses and three (3) credits of elective courses offered by the institute for the respective group. Six (6) credits of main courses in a minor area or minor areas outside his/her Group.Student who has applied for waiving of required electives or minor courses is nonetheless required to complete 18 credits of specialty courses. 3. Should a Ph.D. student in his/her undergraduate or master's study have taken courses requested (i.e. Nine (9) credits of required electives and three (3) credits of general electives must be graduate courses of this Institute. Six (6) credits of main courses in a minor area or minor areas outside his/her Group must be graduate courses of University System of Taiwan (UST)), after being approved by the Director of the Institute and the students' respective advisors, he/she may apply for credit deduction during the registration and course selection period of the first semester. Only credits acquired within the most recent ten years are allowed to be deductable. 4. Master's students directly pursuing a Ph.D. degree must complete at least 24 credits of professional courses before graduation (including courses completed and passed during the master's and Ph.D. programs). This includes nine (9) credits of required courses and nine (9) credits of professional elective courses offered by the institute for the respective group. Six (6) credits of main courses in a minor area or minor areas outside his/her Group. Bachelor's students directly pursuing a Ph.D. degree must also complete at least 24 credits of professional courses before graduation, including nine (9) credits of required courses and nine (9) credits of professional elective courses offered by the Institute for the respective group. The remaining credits must be earned by taking 6 credits of core courses from other Group or other departments. However, credit exemptions may be applied for following the regulations of the master's program. 5. Ph.D. students of the 1st and 2nd years must complete four semesters of Graduate Research and two semesters of the following seminars courses : *Seminar on Solid State Electronics, *Seminar on Circuits and Systems, *Other Seminar course offered by this Institute, and *Seminars offered by the EECS International Graduate Program of NYCU. Starting from academic year 2007, a properly approved outgoing exchange student may waive his/her Seminar for each semester he/she studies overseas. 6. Students who need to enterthe Semiconductor Lab must take the corresponding lab courses, whose credits are not counted toward the 18 required credits of the specialty courses (24 credits are required for direct-pursuit students). II. Solid State Electronics Group 3 out of the following 4 selections:a.Solid State Theory b.Advanced Electromagnetics (I) c.Semiconductor Physics and Devices (I) d.Other specialty courses of the Solid State Electronics Group III. Circuit and System Group 3 out of the following 7 selections: a.Digital Integrated Circuits b.Analog Integrated Circuits or RF Integrated Circuits c.Computer Architecture d.Special Topics in

	Computer Aided Design or VLSI Testing and Design for Testability **e. Digital Signal Processing or Stochastic Processes f. Digital Communication or Detection and Estimation g. Machine Learning or Deep Learning**