

## Course Requirements

Course	Credits				research	total
	general course	Interdisciplinary elective major		Related departments mandatory/elective major		
		mandatory	elective			
MS	3	3	9	6	6	33
Ph.D	3	6	12	9	30	60

- Credits earned from a previous MS course may be used to fulfill the Ph.D course credit requirement.
- Course requirements of related departments as well as interdisciplinary one should be satisfied.
- STE998(MS Internship, 1credits) : The MS course requires the completion.
- STE999(Ph.D Internship, 3credits) : The Ph.D course requires the completion.

### ☐ MS Program (Graduation Credits : at least 33 credits)

#### A. General Courses : 3 credits

- 1 course of CC500(Scientific Writing), CC510(Introduction to Computer Application), CC511(Probability and Statistics), CC512(Introduction to Materials and Engineering), CC513(Engineering Economy and Cost Analysis), CC522(Introduction to Instruments), CC530(Entrepreneurship and Business Strategies), CC531(Patent Analysis and Invention Disclosure), CC532(Collaborative System Design and Engineering)
- Mandatory General Course : credit and 1AU
  - CC010 Special Lecture on Leadership(non-credit, this applies to students entering KAIST in 2002 and thereafter; general scholarship students, foreign students are excluded)
  - CC020 Ethics and Safety I (1AU)

#### B. Interdisciplinary Mandatory Major Courses : None

#### C. Interdisciplinary Elective Major Courses

- Mandatory : 3 credits
  - 1 course of STE505(Semiconductor Process Laboratory), EE571(Advanced Electronic Circuits), CS550(Software Engineering)
- Elective : At least 9 credits
  - Every student must select at least 3 courses among the designated elective major courses.

#### D. Mandatory / Elective Major Courses in the Related Departments : at least 6 credits

Every student must select at least 2 courses among the designated Related departments mandatory/elective major

#### E. Research : At least 6 credits

- Every student must have at least 6 credits in thesis research, individual research, seminar, etc. (Research courses may be substituted by ones in their department)
- The MS course requires the completion of STE998(MS Internship)

### ☐ Ph.D Program (Graduation Credits : at least 60 credits)

#### A. General Course : 3 credits

It is the same as for the MS course. (If the student has already taken this course during his MS program, then it does not have to be taken again.)

B. Interdisciplinary Mandatory Major Courses : None

C. Interdisciplinary Elective Major Course

- Mandatory : 6 credits
  - In addition to the courses taken in the MS program, every student must take at least 2 courses which the interdisciplinary program provides.
  - 2 course of STE505(Semiconductor Process Laboratory), STE605(Semiconductor Memory Devices and SoC Designs), EE571(Advanced Electronic Circuits), CS550(Software Engineering)
- Elective : At least 12 credits
  - In addition to the courses taken in the MS program, every student must take at least 4 courses which the interdisciplinary program provides.

D. Mandatory / Elective Major Courses in the Related Departments : at least 9 credits

In addition to the courses taken in the MS program, every student must take at least 3 courses which the interdisciplinary program provides.

E. Research : at least 30 credits

- Students must have at least 30 credits in thesis research, individual research, seminar, etc. (Research courses may be substituted by ones in their department)
- The Ph.D course requires the completion of STE999(Ph.D Internship)

□ Interim Accommodations

Substitutional course changes

- The students who joined this program after the year 2009 : Take only 1 course out of EE665(CMOS Front-End Process Technology) and MS696(Special Topics in Advanced Materials D).
- The students who joined this program before the year 2009 : Take only 1 course out of EE665(CMOS Front-End Process Technology) and MS635(Semiconductor Integrated Process Design).