

□ **Master's Program**

1) Thesis Master's Degree

General Course	Major Course		Research	Total
	Mandatory	Elective		
3 and 1AU	3	18 or more	6 or more	33

- A. Graduation Credits : At least 33 credits and 1 AU
 - B. Mandatory General Course : 3 credits and 1AU
 - 1 course of CC500 Scientific Writing, CC510 Introduction to Computer Application, CC511 Probability and Statistics (Substitutive subject: EE528), CC512 Introduction to Materials and Engineering, CC513 Engineering Economy and Cost Analysis, CC530 Entrepreneurship and Business Strategies, or CC531 Patent Analysis and Invention Disclosure, CC532 Collaborative System Design and Engineering
 - Mandatory general courses can not be counted as elective major courses.
 - CC010 Special Lecture on Leadership(non-credit, this applies to students entering KAIST in 2002 and onward; general scholarship students, foreign students are excluded)
 - CC020 Ethics and Safety I(1AU)
 - C. Mandatory Major Course : 3 credits
 - Electronics design Lab.
 - D. Elective Course : At least 18 credits
 - At least 2 courses from the EE500-level or above.
 - At least 4 courses among
 - EE400-level courses designated as common course for BS and M.S.
 - xx500-level or above.
 - E. Research: at least 6 credits
 - M.S. Thesis (at least 4 credits), Seminar (Seminar is elective for foreign student)(1), Technical Writing (1)
- 2) Non-thesis Master's Degree
- A. Graduation Credits : At least 33 credits and 1 AU
 - B. Mandatory General Course : 3 credits and 1 AU
 - 1 course of CC500 Scientific Writing, CC510 Introduction to Computer Application, CC511 Probability and Statistics (Substitutive subject: EE528), CC512 Introduction to Materials and Engineering, CC513 Engineering Economy and Cost Analysis, CC530 Entrepreneurship and Business Strategies, or CC531 Patent Analysis and Invention Disclosure, CC532 Collaborative System Design and Engineering
 - CC010 Special Lecture on Leadership(non-credit, this applies to students entering KAIST in 2002 and onward; general scholarship students, foreign students are excluded)
 - CC020 Ethics and Safety I(1AU)
 - C. Mandatory Major Course : 3 credits
 - Electronics design Lab.
 - D. Elective Course : At least 24 credits
 - At least 2 courses from the EE500-level or above.
 - At least 6 courses among
 - EE400-level courses designated as common course for BS and M.S.
 - xx500-level or above.
 - E. Research: at least 6 credits
 - Seminar (Seminar is elective for foreign student)(1), Technical Writing (1), Maximum 1 credit for Individual Study is allowed.
 - F. The non-thesis mater degree is offered only for students who joined to dual degree program.

□ Graduate Course

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
General Course (Select 1 out of 7)	CC010	Special Lecture on Leadership	1:0:0	Fall	*EE521
	CC020	Ethics and Safety I	1AU	Spring-Fall	
	CC500	Scientific Writing	3:0:3(4)	Spring-Fall	
	CC510	Introduction to Computer Application	2:3:3(10)	Spring-Fall	
	CC511	Probability and Statistics	2:3:3(6)	Spring-Fall	
	CC512	Introduction to Materials and Engineering	3:0:3(3)	Spring-Fall	
	CC513	Engineering Economy and Cost Analysis	3:0:3(6)	Fall	
	CC530	Entrepreneurship and Business Strategies	3:0:3(6)	Fall	
	CC531	Patent Analysis and Invention Disclosure	3:0:3(6)	Spring-Fall	
	CC532	Collaborative System Design and Engineering	4:0:4	Spring	
Mandatory Major Course	EE505	Electronics design Lab.	1:6:3(6)	Spring	
Elective Major Course	EE511	Computer Architecture	3:0:3(6)	Spring	
	EE512	System Programming	3:0:3(6)	Fall	
	EE516	Embedded Software	1:6:3(6)	Fall	
	EE520	Telecommunication Networks	3:0:3(6)	Spring	
	EE522	Advanced Communication Systems	3:0:3(6)	Fall	
	EE524	Telecommunication Software Design	3:1:3(6)	Fall	
	EE525	Networking Technology and Applications	1:6:3(6)	Spring	
	EE526	Telephone and Internet Telephony Networks	3:0:3(6)	Fall	
	EE527	Data Communication	3:0:3(6)	Spring	
	EE528	Engineering Random Processes	3:0:3(6)	Spring	
	EE531	Statistical Learning Theory	3:0:3(6)	Fall	
	EE533	Digital Speech Processing	3:0:3(6)	Spring	
	EE535	Digital Image Processing	3:0:3(6)	Spring	
	EE538	Neural Networks	3:0:3(6)	Fall	
	EE539	Nonlinear Statistical Signal Processing	3:0:3(6)	Spring	
	EE541	Electromagnetic Theory	3:0:3(6)	Spring	
	EE542	Microwave Engineering	3:1:3(6)	Fall	
	EE546	Fields and Waves	3:0:3(6)	Fall	
	EE555	Optical Electronics	3:0:3(6)	Spring	
	EE561	Introduction to VLSI Devices	3:0:3(6)	Spring	
	EE563	Display Engineering	3:0:3(6)	Spring	
	EE565	Modern Physics for Engineers	3:0:3(6)	Spring	
	EE566	MEMS in EE Perspective	3:0:3(6)	Fall	
	EE567	Photovoltaic Power Generation	3:0:3(6)	Fall	
	EE568	Introduction to Organic Electronics	3:0:3(6)	Fall	
	EE571	Advanced Electronic Circuits	3:0:3(6)	Spring	
	EE573	Introduction to VLSI Systems	3:0:3(6)	Spring	
	EE574	Computer Aided Design of VLSI Circuits and Systems	3:0:3(6)	Fall	
	EE581	Linear Systems	3:0:3(6)	Spring	
	EE582	Digital Control	3:1:3(6)	Spring	
EE594	Power Electronics Systems	3:0:3(6)	Fall		
EE612	Discrete Event System Modeling and Simulation	3:0:3(6)	Fall	*CS655	
EE621	Coding Theory	3:0:3(6)	Spring		
EE622	Signal Detection Theory	3:0:3(6)	Fall		
EE623	Information Theory	3:0:3(6)	Spring		
EE624	Mobile Communication Systems	3:0:3(6)	Fall		

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Elective Major Course	EE625	Applied Detection and Estimation	3:0:3(6)	Spring	*CS676
	EE627	Performance Analysis of Communication Networks	3:0:3(6)	Spring	
	EE628	Visual Communication Systems	3:0:3(6)	Fall	
	EE631	Advanced Digital Signal Processing	3:0:3(6)	Spring	
	EE634	Pattern Recognition	3:0:3(6)	Fall	
	EE641	Monolithic Microwave Integrated Circuits	3:0:3(6)	Fall	
	EE652	Optical Communication	3:0:3(6)	Fall	
	EE661	Solid State Physics	3:0:3(6)	Spring	
	EE663	High Frequency Electronic Devices	3:0:3(6)	Spring	
	EE665	CMOS Front-end Process Technology	3:0:3(6)	Spring	
	EE676	Analog Integrated Circuits	3:0:3(6)	Fall	
	EE678	Digital Integrated Circuits	3:0:3(6)	Fall	
	EE681	Nonlinear Control	3:0:3(6)	Fall	
	EE682	Intelligent Control Theory	3:0:3(6)	Fall	
	EE683	Robot Control	3:0:3(6)	Fall	
	EE684	Evolutionary Computation	3:0:3(6)	Fall	
	EE686	Optimization Theory	3:0:3(6)	Fall	
	EE687	Real-Time Control	3:0:3(6)	Spring	
	EE724	Parallel and Distributed Computation	3:0:3(6)	Fall	
	EE726	Optimization in Communication Networks	3:0:3(6)	Fall	
	EE731	Adaptive Signal Processing	3:0:3(6)	Spring	
	EE733	Multirate Signal Processing	3:0:3(6)	Spring	
	EE735	Computer Vision	3:0:3(6)	Spring	
	EE737	Imaging Systems	3:0:3(6)	Spring	
	EE741	Radiation and Diffraction of Waves	3:0:3(6)	Spring	
	EE742	Ray Analysis for Electromagnetic Scattering Problems	3:0:3(6)	Fall	
	EE745	EMI / EMC Design and Analysis	3:0:3(6)	Spring	
	EE757	Nonlinear Fiber Optics	3:0:3(6)	Spring	
	EE762	Advanced MOS Device Physics	3:0:3(6)	Fall	
	EE783	Adaptive Control Theory	3:0:3(6)	Spring	
	EE785	Robust Control Theory	3:0:3(6)	Spring	
	EE786	Optimal Control Theory	3:0:3(6)	Fall	
	EE788	Robot Cognition and Planning	3:0:3(6)	Fall	
	EE791	Power Conversion Circuits and Systems	3:0:3(6)	Spring	
	EE807	Special Topics in Electrical Engineering	3:0:3(6)	Spring	
	EE808	Special Topics in Electronic Engineering I	1:0:1	Spring, Fall	
	EE809	Special Topics in Electronic Engineering II	2:0:2	Spring, Fall	
	EE817	Special Topics in Computer Engineering	3:0:3(6)	Spring	
	EE827	Special Topics in Communication	3:0:3(6)	Spring	
	EE837	Special Topics in Signal Processing	3:0:3(6)	Spring, Fall	
	EE838	Special Topics in Image Engineering	3:0:3(6)	Fall	
EE847	Special Topics in Electromagnetics	3:0:3(6)	Spring, Fall		
EE857	Special Topics in Optical Engineering	3:0:3(6)	Spring		
EE867	Special Topics in Physical Electronics	3:0:3(6)	Spring, Fall		
EE868	Special Topics in Solid-State Physics	3:0:3(6)	Fall		
EE877	Special Topics in Integrated Circuits	3:0:3(6)	Spring, Fall		
EE878	Special Topics in VLSI	3:0:3(6)	Fall		
EE887	Special Topics in Robotics	3:0:3(6)	Spring		
EE888	Special Topics in Control Theory	3:0:3(6)	Spring, Fall		
EE897	Special Topics in Power Electronics	3:0:3(6)	Spring		
EE898	Special Topics in Intelligent Information Processing	3:0:3(6)	Fall		
Research	EE960	M.S. Thesis			
	EE966	M.S. Seminar	1:0:1	Spring	
	EE980	Ph.D. Thesis			
	EE966	Ph.D. Seminar	1:0:1	Spring	
	EE990	Technical Writing	1:0:1(2)	Fall	

Notes. i) 500 level course credits except EE505, EE525 can be counted as bachelor course credits.

ii) "*" mark represents a substitutive subject