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Code : 25500041111316 Master of Engineering Program in Computer Engineering (หลักสูตรปรับปรุง พ.ศ.2559)

#### Name of the degree

**Full :** Master of Engineering (Computer Engineering) **Abbreviation :** M.Eng. (Computer Engineering)

### **Curriculum structure**

	61011 Ty ree Require		an A Tyj	pe A 1)	36
Α. Τ	hesis				
	261798	CPE	798	THESIS	36

#### **B. Academic Activities**

1. A student has to organize and present a seminar on the topic related to his/her thesis once every semester for at least three semesters and students have to attend the seminar in every semester that the course is offered.

2. The whole or part of a thesis must be published/accepted for publication in national journal(s) which are categorized in TCI database Tier 1 or international journal according with the regulation on criteria of journal for publication by the office of the higher education commission. At least 1 academic paper must have the student's name as the first aurthor.

3. A student has to report thesis progression to the Graduate School every semester, for approval by the Chairman of the Graduate Study Committee.

#### C. Non-credit Courses

1. Graduate School requirement

foreign language

2. Program requirement

- A student must pass a training course on research methodology to enhance his/her capability in conducting his/her research for at least 15 hours in his/her first semester. Unsuccessful examinee must pass a re-examination within the following two regular semesters.

- In the case that a student lacks sufficient academic knowledge concerning his/her research subject, the student will be required to enroll in course(s), without earning any credits, as recommended by his/her thesis advisor.

-	D6361021 Type 2 (Plan A Type A 2) Degree Requirement : a minimum of					
A. Course work	24					
1. Graduate Co	24					
1.1 Field of con	24					
1.1.1 Required	9					
261701	CPE	701	MATHEMATICS FOR COMPUTER ENGINEERING	3(3-0-6)		
261702	CPE	702	Algorithm Analysis and Design	3(3-0-6)		

261706	CPE	706	Research Methodology for Computer Engineering	2(2-0-4
261791	CPE	791	SEMINAR IN COMPUTER ENGINEERING	1(1-0-2
<b>1.2 Elective c</b> onstruction			of ing subject groups.	15
Basic and Ger	neral Comp	uter Engin	eering	
261704	CPE	704	Advanced Computer Architecture	3(3-0-6
261705	CPE	705	Advanced Operating System	3(3-0-6
Computer Har	dware			
261721	CPE	721	Computer Hardware Design	3(3-0-6
261722	CPE	722	Advanced Embedded Systems	3(3-0-6
Computer Net	work			
261730	CPE	730	Wireless Communications	3(3-0-6
261731	CPE	731	Parallel Processing and Distributed Systems	3(3-0-6
261732	CPE	732	QUEUEING THEORY	3(3-0-6
261733	CPE	733	DESIGN AND ANALYSIS OF COMPUTER NETWORKS	3(3-0-6
261734	CPE	734	ADVANCED NETWORKS PROGRAMMING	3(3-0-6
261735	CPE	735	Information Security	3(3-0-6
261736	CPE	736	Wireless Networking	3(3-0-6
261737	CPE	737	Advanced Routing Protocols	3(3-0-6
261738	CPE	738	Multiprotocol Label Switching Technology	3(3-0-6
261739	CPE	739	Advanced Network Management	3(3-0-6
Information Te	echnology			
261741	CPE	741	DATABASE MANAGEMENT SYSTEM 1	3(3-0-6
261742	CPE	742	DATABASE MANAGEMENT SYSTEM 2	3(3-0-6
261743	CPE	743	Information Architecture	3(3-0-6
261744	CPE	744	INFORMATION THEORY AND CODING	3(3-0-6
261745	CPE	745	Data Mining	3(3-0-6
261746	CPE	746	Human-Computer Interaction	3(3-0-6
261747	CPE	747	INFORMATION TECHNOLOGY INFRASTRUCTRUE LIBRARY	3(3-0-6
261748	CPE	748	SERVICE-ORIENTED ARCHITECTURE	3(3-0-6
Computationa	I Intelligenc	e		
261751	CPE	751	Advanced Neural Networks	3(3-0-6
261752	CPE	752	Digital Image Analysis	3(3-0-6
261753	CPE	753	Computer Vision	3(3-0-6
261754	CPE	754	Advanced Pattern Recognition	3(3-0-6
-		-	v	- (

261755

261756

261757

261758

CPE

CPE

CPE

CPE

755

756

757

758

Advanced Fuzzy Set Theory

Digital Video Processing

Advanced Neuro-Fuzzy

Image Registration

3(3-0-6)

3(3-0-6)

3(3-0-6)

3(3-0-6)

#### Computer Software

261763	CPE	763	Advanced Computer Graphics	3(3-0-6)
261764	CPE	764	ADVANCED SOFTWARE ENGINEERING	3(3-0-6)
261766	CPE	766	ADVANCED OBJECT-ORIENTED PROGRAMMING	3(3-0-6)
261767	CPE	767	COMPUTER SIMULATION FOR ENGINEERING PROBLEMS	3(3-0-6)
261768	CPE	768	PARALLEL PROGRAMMING OF GRAPHICS PROCESSING UNITS AND MULTI-CORE CENTRAL PROCESSING UNITS	3(3-0-6)
261769	CPE	769	Computational Media	3(3-0-6)

Signal System and Computer-based Automatic Control

261771	CPE	771	ADVANCED DIGITAL SIGNAL PROCESSING FOR COMPUTER ENGINEERING	3(3-0-6)
261772	CPE	772	COMPUTER APPLICATION FOR MEDICAL INSTRUMENTS	3(3-0-6)
261773	CPE	773	SPEECH AND AUDIO SIGNAL PROCESSING	3(3-0-6)

Software Engineering

261781	CPE	781	SOFTWARE PROJECT MANAGEMENT	3(3-0-6)
261782	CPE	782	ADVANCED RISK MANAGEMENT IN SOFTWARE PROJECT	3(3-0-6)
261783	CPE	783	SOFTWARE REQUIREMENT ANALYSIS	3(3-0-6)
261784	CPE	784	FORMAL METHODS IN SOFTWARE ENGINEEING	3(3-0-6)
261785	CPE	785	SOFTWARE ARCHITECTURE	3(3-0-6)
261786	CPE	786	SOFTWARE QUALITY ASSURANCE	3(3-0-6)

Special Arrangement by the Department

26179	2 CPE	792	SELECTED TOPICS IN COMPUTER ENGINEERING	3(3-0-6)
26179	3 CPE	793	SELECTED TOPICS IN COMPUTER SOFTWARE	3(3-0-6)
26179	4 CPE	794	SELECTED TOPICS IN COMPUTER NETWORK	3(3-0-6)
26179	5 CPE	795	SELECTED TOPICS IN COMPUTATIONAL	3(3-0-6)
26179	6 CPE	796	SELECTED TOPICS IN INFORMATION TECHNOLOGY	3(3-0-6)
26189	1 CPE	891	SELECTED TOPICS IN COMPUTER ENGINEERING 1	3(3-0-6)
26189	2 CPE	892	SELECTED TOPICS IN COMPUTER ENGINEERING 2	3(3-0-6)
26189	3 CPE	893	SELECTED TOPICS IN COMPUTER SOFTWARE 1	3(3-0-6)
26189	4 CPE	894	SELECTED TOPICS IN COMPUTER NETWORK 1	3(3-0-6)
26189	5 CPE	895	SELECTED TOPICS IN COMPUTATIONAL INTELLIGENCE 1	3(3-0-6)
26189	6 CPE	896	SELECTED TOPICS IN INFORMATION TECHNOLOGY 1	3(3-0-6)

NOTE A student may enroll in some courses in related areas to enhance his/her capability in conducting his/her research with the approval of the Graduate Program Administrative Committee. These courses can be counted as elective courses toward the degree. However, a student must enroll in elective courses of the Computer Engineering at least 9 credits.

1.2 Other Courses

None

#### 2. Advanced Undergraduate Courses

None

<b>B. Thesis</b> 261799	CPE	799	THESIS	12		
C. Non-credit (	Courses					
1. Graduate S	School requir	ement:				
C. Non-credit Courses         1. Craduate School requirement:         a foreign language         2. Program requirement:         None         D. Academic Activities         1. The whole or part of a thesis must be published/accepted for publication in national journal(s) (as full paper) which are categorized in To diathase Ther or international journal courses for or international journal courses for or international journal courses for the oriterination provide or the higher education commission. Or it must be presented in a conference and published in proceedings with peer reviews as full academic paper: At least 1 academic paper with the regulation on cetteria of publication by the office of the higher education courses : a minimum of       30         1.1. Field of concentration courses : a minimum of       30         1.1. Regulare Courses : a minimum of       31         1.2. Research Methodology for Computer Engineering       22-         2.8. To 0       Research Methodology for Computer Engineering       21         Students can select from the following subject groups.       31       32         Basic and General Computer Engineering       32 <t< td=""><td></td></t<>						
2. Program re	equirement:					
None						
D. Academic A	ctivities					
in TCI databa higher educa academic pa 06361031 T	ase Tier 1 or i tion commiss per. At least 7 ype 3 (Pla	internation sion. Or it r 1 academin an <b>B)</b>	al journal according with the regulation on criteria of journal for publication by the office of the must be presented in a conference and published in proceedings with peer reviews as full c paper must have the student's name as the first aurthor.	26		
		courses :				
-		701	MATHEMATICS FOR COMPUTER ENGINEERING	3(3-0-6)		
261702	CPE	702	Algorithm Analysis and Design	3(3-0-6)		
261706	CPE	706	Research Methodology for Computer Engineering	2(2-0-4)		
261791	CPE	791	SEMINAR IN COMPUTER ENGINEERING	1(1-0-2)		
				21		
Basic and Ge	eneral Compu	uter Engine	sering			
261704	CPE	704	Advanced Computer Architecture	3(3-0-6)		
261705	CPE	705	Advanced Operating System	3(3-0-6)		
Computer Ha	ırdware					
	CPE	721	Computer Hardware Design	3(3-0-6)		
261721		700	Advanced Embedded Systems	3(3-0-6)		
	CPE	122				
261722		122				
261722 Computer Ne	etwork		Wireless Communications	3(3-0-6)		
261722 Computer Ne 261730	etwork CPE	730				
261722 Computer Ne 261730 261731	etwork CPE CPE	730 731	Parallel Processing and Distributed Systems	3(3-0-6)		
261722 Computer Ne 261730 261731 261732	etwork CPE CPE CPE	730 731 732	Parallel Processing and Distributed Systems QUEUEING THEORY	3(3-0-6) 3(3-0-6)		
261722 Computer Ne 261730 261731 261732	etwork CPE CPE CPE	730 731 732	Parallel Processing and Distributed Systems QUEUEING THEORY	3(3-0-6) 3(3-0-6) 3(3-0-6) 3(3-0-6) 3(3-0-6)		

261736	CPE	736	Wireless Networking	3(3-0-6)
261737	CPE	737	Advanced Routing Protocols	3(3-0-6)
261738	CPE	738	Multiprotocol Label Switching Technology	3(3-0-6)
261739	CPE	739	Advanced Network Management	3(3-0-6)

### Information Technology

261741	CPE	741	DATABASE MANAGEMENT SYSTEM 1	3(3-0-6)
261742	CPE	742	DATABASE MANAGEMENT SYSTEM 2	3(3-0-6)
261743	CPE	743	Information Architecture	3(3-0-6)
261744	CPE	744	INFORMATION THEORY AND CODING	3(3-0-6)
261745	CPE	745	Data Mining	3(3-0-6)
261746	CPE	746	Human-Computer Interaction	3(3-0-6)
261747	CPE	747	INFORMATION TECHNOLOGY INFRASTRUCTRUE LIBRARY	3(3-0-6)
261748	CPE	748	SERVICE-ORIENTED ARCHITECTURE	3(3-0-6)

Computational Intelligence

261751	CPE	751	Advanced Neural Networks	3(3-0-6)
261752	CPE	752	Digital Image Analysis	3(3-0-6)
261753	CPE	753	Computer Vision	3(3-0-6)
261754	CPE	754	Advanced Pattern Recognition	3(3-0-6)
261755	CPE	755	Advanced Fuzzy Set Theory	3(3-0-6)
261756	CPE	756	Digital Video Processing	3(3-0-6)
261757	CPE	757	Advanced Neuro-Fuzzy	3(3-0-6)
261758	CPE	758	Image Registration	3(3-0-6)

#### Computer Software

261763	CPE	763	Advanced Computer Graphics	3(3-0-6)
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261767	CPE	767	COMPUTER SIMULATION FOR ENGINEERING PROBLEMS	3(3-0-6)
261768	CPE	768	PARALLEL PROGRAMMING OF GRAPHICS PROCESSING UNITS AND MULTI-CORE CENTRAL PROCESSING UNITS	3(3-0-6)
261769	CPE	769	Computational Media	3(3-0-6)

### Signal System and Computer-based Automatic Control

261771	CPE	771	ADVANCED DIGITAL SIGNAL PROCESSING FOR COMPUTER ENGINEERING	3(3-0-6)
261772	CPE	772	COMPUTER APPLICATION FOR MEDICAL INSTRUMENTS	3(3-0-6)
261773	CPE	773	SPEECH AND AUDIO SIGNAL PROCESSING	3(3-0-6)

### Software Engineering

261781	CPE	781	SOFTWARE PROJECT MANAGEMENT	3(3-0-6)
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261783	CPE	783	SOFTWARE REQUIREMENT ANALYSIS	3(3-0-6)
261784	CPE	784	FORMAL METHODS IN SOFTWARE ENGINEEING	3(3-0-6)
261785	CPE	785	SOFTWARE ARCHITECTURE	3(3-0-6)

Special Arrangement by the Department       261792       CPE       792       SELECTED TOPICS IN COMPUTER ENGINEERING       3(3-0)         261793       CPE       793       SELECTED TOPICS IN COMPUTER SOFTWARE       3(3-0)         261794       CPE       794       SELECTED TOPICS IN COMPUTER NETWORK       3(3-0)         261795       CPE       795       SELECTED TOPICS IN COMPUTER NETWORK       3(3-0)         261796       CPE       796       SELECTED TOPICS IN INFORMATION TECHNOLOGY       3(3-0)         261891       CPE       891       SELECTED TOPICS IN COMPUTER ENGINEERING 1       3(3-0)         261892       CPE       892       SELECTED TOPICS IN COMPUTER ENGINEERING 2       3(3-0)         261893       CPE       893       SELECTED TOPICS IN COMPUTER ENGINEERING 2       3(3-0)         261894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         261895       CPE       895       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         261896       CPE       896       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         261896       CPE       896       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         261896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY					
261792       CPE       792       SELECTED TOPICS IN COMPUTER ENGINEERING       3(3-0)         281793       CPE       793       SELECTED TOPICS IN COMPUTER NETWORK       3(3-0)         281794       CPE       794       SELECTED TOPICS IN COMPUTER NETWORK       3(3-0)         281795       CPE       796       SELECTED TOPICS IN COMPUTER NETWORK       3(3-0)         281796       CPE       796       SELECTED TOPICS IN COMPUTER NETWORK       3(3-0)         281796       CPE       796       SELECTED TOPICS IN COMPUTER NETWORK       3(3-0)         281891       CPE       891       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         281892       CPE       893       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         281893       CPE       893       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         281894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         281896       CPE       895       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         2.0 Other Courses       None       3(3-0)       3(3-0)       3(3-0)         3. Independent Study       100 EPENDENT STUDY       6       3(3-0)       3(3-0)         2. Program requirement:	261786	CPE	786	SOFTWARE QUALITY ASSURANCE	3(3-0-6
261793       CPE       793       SELECTED TOPICS IN COMPUTER SOFTWARE       3(3-4)         261794       CPE       794       SELECTED TOPICS IN COMPUTATIONAL       3(3-4)         261795       CPE       795       SELECTED TOPICS IN NORMATION TECHNOLOGY       3(3-4)         261796       CPE       796       SELECTED TOPICS IN COMPUTER ENGINEERING 1       3(3-4)         261801       CPE       891       SELECTED TOPICS IN COMPUTER ENGINEERING 2       3(3-4)         261892       CPE       893       SELECTED TOPICS IN COMPUTER REGINEERING 2       3(3-4)         261893       CPE       894       SELECTED TOPICS IN COMPUTER SOFTWARE 1       3(3-4)         261894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-4)         261895       CPE       896       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-4)         261896       CPE       896       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-4)         261896       CPE       896       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-4)         261896       CPE       896       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-4)         2010er Courses       None       -       -       -         1. foraduate School requirement:	Special Arrang	gement by tl	ne Departr	nent	
261794 CPE 794 SELECTED TOPICS IN COMPUTER NETWORK 313-0 261795 CPE 795 SELECTED TOPICS IN COMPUTATIONAL 313-0 261796 CPE 796 SELECTED TOPICS IN INFORMATION TECHNOLOGY 313-0 261891 CPE 891 SELECTED TOPICS IN COMPUTER RUBINEERING 1 313-0 261892 CPE 892 SELECTED TOPICS IN COMPUTER RUBINEERING 2 313-0 261893 CPE 893 SELECTED TOPICS IN COMPUTER SOFTWARE 1 313-0 261894 CPE 894 SELECTED TOPICS IN COMPUTER SOFTWARE 1 313-0 261895 CPE 895 SELECTED TOPICS IN COMPUTER NOT NAL INTELLIGENCE 1 313-0 261896 CPE 895 SELECTED TOPICS IN INFORMATION TECHNOLOGY 1 313-0 261896 CPE 896 SELECTED TOPICS IN INFORMATION TECHNOLOGY 1 313-0 2010er Courses None Advanced Undergraduate Courses None Advanced Undergraduate Courses None 2. Independent Study 261797 CPE 797 INDEPENDENT STUDY 6 3. On-credit Courses 1. Graduate School requirement: 2. Program requirement: 3. Academic activity The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	261792	CPE	792	SELECTED TOPICS IN COMPUTER ENGINEERING	3(3-0-6
261795       CPE       795       SELECTED TOPICS IN COMPUTATIONAL       30-0         261796       CPE       796       SELECTED TOPICS IN INFORMATION TECHNOLOGY       30-0         261891       CPE       891       SELECTED TOPICS IN COMPUTER ENGINEERING 1       30-0         261892       CPE       892       SELECTED TOPICS IN COMPUTER NOTICE PRIGINEERING 2       30-0         261893       CPE       893       SELECTED TOPICS IN COMPUTER NOTICE PRIGINEERING 2       30-0         261894       CPE       894       SELECTED TOPICS IN COMPUTER NOTICE PRICE 1       30-0         261894       CPE       895       SELECTED TOPICS IN COMPUTER NOTICE PRICE 1       30-0         261895       CPE       896       SELECTED TOPICS IN NOMPUTATIONAL INTELLIGENCE 1       30-0         261896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       30-0         201896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       30-0         .       Advanced Undergraduate Courses       None       .       .         .       Independent Study       797       INDEPENDENT STUDY       6         .       Non-credit Courses       .       .       .         .       Program requirement: <td>261793</td> <td>CPE</td> <td>793</td> <td>SELECTED TOPICS IN COMPUTER SOFTWARE</td> <td>3(3-0-6</td>	261793	CPE	793	SELECTED TOPICS IN COMPUTER SOFTWARE	3(3-0-6
281796       CPE       796       SELECTED TOPICS IN INFORMATION TECHNOLOGY       30-40         281891       CPE       891       SELECTED TOPICS IN COMPUTER ENGINEERING 1       30-40         281892       CPE       892       SELECTED TOPICS IN COMPUTER NGINEERING 2       30-40         281893       CPE       893       SELECTED TOPICS IN COMPUTER NETWORK 1       30-40         281894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       30-40         281895       CPE       896       SELECTED TOPICS IN COMPUTER NETWORK 1       30-40         281896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       30-40         281896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       30-40         2 Other Courses       None       Selected ToPICS IN INFORMATION TECHNOLOGY 1       30-40         Advanced Undergraduate Courses       None       Selected ToPICS IN INFORMATION TECHNOLOGY 1       6         None       Selected ToPICS IN INFORMATION TECHNOLOGY 1       6       Selected ToPICS IN INFORMATION TECHNOLOGY 1       6         None       Selected ToPICS IN TOTOY       6       Selected ToPICS IN INFORMATION TECHNOLOGY 1       5         2 Program requirement:       Selected ToPICS IN INFORMATION TECHNOLOGY 1       <	261794	CPE	794	SELECTED TOPICS IN COMPUTER NETWORK	3(3-0-6
281891       CPE       891       SELECTED TOPICS IN COMPUTER ENGINEERING 1       30-00         261892       CPE       892       SELECTED TOPICS IN COMPUTER ENGINEERING 2       30-00         261893       CPE       893       SELECTED TOPICS IN COMPUTER SOFTWARE 1       30-00         261894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       30-00         261895       CPE       895       SELECTED TOPICS IN COMPUTER NETWORK 1       30-00         261896       CPE       896       SELECTED TOPICS IN COMPUTATIONAL INTELLIGENCE 1       30-00         261896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       30-00         20 Ther Courses       None       None       None       None         1. Independent Study       797       INDEPENDENT STUDY       6         2. Independent Study       797       INDEPENDENT STUDY       6         3. Greign language       2       Program requirement:       2         a foreign language       2       Program requirement:       2         Academic activity       The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.       6	261795	CPE	795	SELECTED TOPICS IN COMPUTATIONAL	3(3-0-6
261892       CPE       892       SELECTED TOPICS IN COMPUTER ENGINEERING 2       30-0         261893       CPE       893       SELECTED TOPICS IN COMPUTER SOFTWARE 1       30-0         261894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       30-0         261895       CPE       895       SELECTED TOPICS IN COMPUTER NETWORK 1       30-0         261896       CPE       896       SELECTED TOPICS IN COMPUTATIONAL INTELLIGENCE 1       30-0         201896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       30-0         201896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       30-0         2010er Courses       None       None	261796	CPE	796	SELECTED TOPICS IN INFORMATION TECHNOLOGY	3(3-0-6
261893       CPE       893       SELECTED TOPICS IN COMPUTER SOFTWARE 1       3(3-0)         261894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         261895       CPE       895       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         261895       CPE       896       SELECTED TOPICS IN COMPUTATIONAL INTELLIGENCE 1       3(3-0)         261896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         20 Other Courses       None       Selected TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         20 Other Courses       None       Selected TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         20 Other Courses       None       Selected TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         20 Other Courses       None       Selected TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         21 Other Gourses       None       Selected Topics IN INFORMATION TECHNOLOGY 1       6         None       Selected Topics IN TODY       6       Selected Topics IN INFORMATION TECHNOLOGY 1       6         Non-credit Courses       Independent Study       Selected Topics IN INFORMATION TECHNOLOGY 1       10       10         2 Program requirement:       Independent Study INSTREAMENTION TECHNOLOGY 1       10       10 </td <td>261891</td> <td>CPE</td> <td>891</td> <td>SELECTED TOPICS IN COMPUTER ENGINEERING 1</td> <td>3(3-0-6</td>	261891	CPE	891	SELECTED TOPICS IN COMPUTER ENGINEERING 1	3(3-0-6
261894       CPE       894       SELECTED TOPICS IN COMPUTER NETWORK 1       3(3-0)         261895       CPE       895       SELECTED TOPICS IN COMPUTATIONAL INTELLIGENCE 1       3(3-0)         261896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         2 Other Courses       None	261892	CPE	892	SELECTED TOPICS IN COMPUTER ENGINEERING 2	3(3-0-6
281895       CPE       895       SELECTED TOPICS IN COMPUTATIONAL INTELLIGENCE 1       3(3-c)         281896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       3(3-c)         20 Other Courses       None	261893	CPE	893	SELECTED TOPICS IN COMPUTER SOFTWARE 1	3(3-0-6
281896       CPE       896       SELECTED TOPICS IN INFORMATION TECHNOLOGY 1       3(3-0)         2 Other Courses       None       Advanced Undergraduate Courses	261894	CPE	894	SELECTED TOPICS IN COMPUTER NETWORK 1	3(3-0-6
2 Other Courses None Advanced Undergraduate Courses None . Independent Study 261797 CPE 797 INDEPENDENT STUDY 6 . Non-credit Courses 1. Graduate School requirement: a foreign language 2. Program requirement: 	261895	CPE	895	SELECTED TOPICS IN COMPUTATIONAL INTELLIGENCE 1	3(3-0-6
None   Advanced Undergraduate Courses   None   Independent Study   261797   CPE   797   INDEPENDENT STUDY   6   Non-credit Courses   1. Graduate School requirement:   a foreign language   2. Program requirement:   • None	261896	CPE	896	SELECTED TOPICS IN INFORMATION TECHNOLOGY 1	3(3-0-6
Advanced Undergraduate Courses   None     Independent Study   261797   CPE   797   INDEPENDENT STUDY   6     Non-credit Courses   1. Graduate School requirement:     a foreign language     2. Program requirement:     •None     •None     •Adademic activity   The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	2 Other Cours	ses			
None   Independent Study   261797   CPE   797   INDEPENDENT STUDY   6   Non-credit Courses   1. Graduate School requirement:   a foreign language   2. Program requirement:   QNone    Academic activity The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	None				
261797       CPE       797       INDEPENDENT STUDY       6         Non-credit Courses       1. Graduate School requirement:       1       1         a foreign language       1       1       1       1         2. Program requirement:       1       1       1       1       1         9. None       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 </td <td></td> <td>ndergradua</td> <td>te Course</td> <td>S</td> <td></td>		ndergradua	te Course	S	
1. Graduate School requirement:         a foreign language         2. Program requirement: $\wp$ None <b>Academic activity</b> The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	-	-	797	INDEPENDENT STUDY	6
a foreign language 2. Program requirement: QNone Academic activity The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	. Non-credit C	ourses			
2. Program requirement: None Academic activity The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	1. Graduate S	chool requir	ement:		
None         D. Academic activity         The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	a foreign langu	uage			
<b>D. Academic activity</b> The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	2. Program red	quirement:			
The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	਼None				
The whole or part of an independent study must be published in any sources which can be search according the regulation of the Graduate School.	). Academic ac	tivity			
E. Comprehensive Examination			dependent	study must be published in any sources which can be search according the regulation of the	
	E. Comprehens	ive Examin	ation		
Having submitted a request form to the Graduate School, approved by general advisor or major thesis advisor, a student must then complete a comprehensive examination.					
Study plan	tudy plan				

06361011 Type 1 (Plan A Type A 1)

**First Year** 

			Pass foreign language requirement		0
			Present thesis proposal		0
			seminar		0
				Total	<u>9</u>
			Second Semester		Credi
261798	CPE	798	THESIS		9
			seminar		0
				Total	<u>9</u>
			Second Year		
			First Semester		Credi
261798	CPE	798	THESIS		9
			seminar		0
				Total	<u>9</u>

				Second Semester	C	redits
2	61798	CPE	798	THESIS		9
				seminar		0
				Thesis Defense		0
					Total	<u>9</u>

# 06361021 Type 2 (Plan A Type A 2)

### First Year

			First Semester		Credits
261701	CPE	701	MATHEMATICS FOR COMPUTER ENGINEERING		3
261702	CPE	702	Algorithm Analysis and Design		3
261706	CPE	706	Research Methodology for Computer Engineering		2
			Elective course		3
			Pass foreign language requirement		0
				Total	<u>11</u>
			Second Semester		Credits
			Elective course		12
			Present thesis proposal		0

Total <u>12</u>

# Second Year

CPE	791	SEMINAR IN COMPUTER ENGINEERING	1
CPE	799	THESIS	6
		Total	<u>7</u>
	700	Second Semester	Credits
CPE	799		6
(		CPE 799	CPE 799 THESIS Total Second Semester

# 06361031 Type 3 (Plan B)

# First Year

261701	CPE	701	First Semester MATHEMATICS FOR COMPUTER ENGINEERING		Credits 3
261702	CPE	702	Algorithm Analysis and Design		3
261706	CPE	706	Research Methodology for Computer Engineering		2
			Elective course		3
				Total	<u>11</u>
			Second Semester		Credit
			Elective course		12
			Pass foreign language requirement		0
				Total	<u>12</u>
			Second Year		
			First Semester		Credit
261791	CPE	791	SEMINAR IN COMPUTER ENGINEERING		1
261797	CPE	797	INDEPENDENT STUDY		3
			Elective course		6
			Present independent study proposal		0
				Total	<u>10</u>
			Second Semester		Credit

			Second Semester	,	Credits
261797	CPE	797	INDEPENDENT STUDY		3
			Independent study defense		0
				Total	<u>3</u>