

## Doctor of Engineering Program

### Curriculum

Doctor of Engineering in Electrical and Computer Engineering is research-based program. Even though the program is research program, students are required to take some foundation courses such as research methodology, seminar, or other related courses with no credit. In addition, the students are also required to participate in academic events such as academics conferences, symposium, workshop, seminar, and etc.

The curriculum for the doctoral program in Electrical and Computer Engineering are divided into 2 tracks based on previous degree of the students.

**Track 1:** For students holding master degree level

- Total Credits 48 Credits
  - Fundamental and Basic Topics (no credits)
    - Research Methodology
    - Seminars
  - Thesis 48 Credits

**Track 2:** For students holding Bachelor degree level

- Total Credits 72 Credits
  - Fundamental and Basic Topics (no credits)
    - Research Methodology
    - Seminars
  - Thesis 72 Credits

### Semester Period

Semester 1	August – December
Semester 2	January – May
Summer Semester (if applicable)	June – July

## Program Structure

Track 1 For students holding master degree level

- Note**
- Group 1: Students who start their study during the first semester
  - Group2: Students who start their study during the second semester
  - Group3: Students who start their study during the summer semester

### 1<sup>st</sup> Year 1<sup>st</sup> Semester

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
PL171	Research Methodology	0 (Section 9000)	-	-
ECE700	Thesis	5 (Section 9005)	-	-
		5	-	-

### 1<sup>st</sup> Year 2<sup>nd</sup> Semester

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
PL172	Seminar	0 (Section 9000)	0 (Section 9000)	-
ECE700	Thesis	5 (Section 9005)	5 (Section 9005)	-
		5	5	-

### 1<sup>st</sup> Year Summer Semester

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE700	Thesis	2 (Section 9002)	2 (Section 9002)	2 (Section 9002)
	Candidacy Oral Examination	0	-	-
		2	2	2

**2<sup>nd</sup> Year 1<sup>st</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
PL171	Research Methodology	-	0 (Section 9000)	0 (Section 9000)
ECE700	Thesis	7 (Section 9007)	5 (Section 9005)	5 (Section 9005)
	Candidacy Oral Examination	-	0	-
		7	5	5

**2<sup>nd</sup> Year 2<sup>nd</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
PL172	Seminar	-	-	0 (Section 9000)
ECE700	Thesis	7 (Section 9007)	7 (Section 9007)	5 (Section 9005)
	Candidacy Oral Examination	-	-	0
		7	7	5

**2<sup>nd</sup> Year Summer Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE700	Thesis	4 (Section 9004)	4 (Section 9004)	4 (Section 9004)
	Proposal Examination	0	-	-
		4	4	4

**3<sup>rd</sup> Year 1<sup>st</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE700	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
	Proposal Examination	-	0	-
		7	7	7

**3<sup>rd</sup> Year 2<sup>nd</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE700	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
	Proposal Examination	-	-	0
		7	7	7

**3<sup>rd</sup> Year Summer Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE700	Thesis	4 (Section 9004)	4 (Section 9004)	4 (Section 9004)
	Final Defense Examination	0	-	-
		4	4	4

4<sup>th</sup> Year 1<sup>st</sup> Semester

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE700	Thesis	-	7 (Section 9007)	7 (Section 9007)
	Final Defense Examination	-	0	-
		-	7	7

 4<sup>th</sup> Year 2<sup>nd</sup> Semester

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE700	Thesis	-	-	7 (Section 9007)
	Final Defense Examination	-	-	0
		-	-	7

Track 2 For students holding Bachelor degree level

**Note** Group 1: Students who start their study during the first semester  
 Group2: Students who start their study during the second semester  
 Group3: Students who start their study during the summer semester

**1<sup>st</sup> Year 1<sup>st</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	7 (Section 9007)	-	-
PL171	Research Methodology	0 (Section 9000)	-	-
		7	-	-

**1<sup>st</sup> Year 2<sup>nd</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	7 (Section 9007)	7 (Section 9007)	-
PL172	Seminar	0 (Section 9000)	0 (Section 9000)	-
		7	7	-

**1<sup>st</sup> Year Summer Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	4 (Section 9004)	4 (Section 9004)	4 (Section 9004)
		4	4	4

**2<sup>nd</sup> Year 1<sup>st</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
PL171	Research Methodology	-	0 (Section 9000)	0 (Section 9000)
ECE800	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
		7	7	7

**2<sup>nd</sup> Year 2<sup>nd</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
PL172	Seminar	-	-	0 (Section 9000)
ECE800	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
		7	7	7

**2<sup>nd</sup> Year Summer Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	4 (Section 9004)	4 (Section 9004)	4 (Section 9004)
	Candidacy Oral Examination	0	-	-
		4	4	4

**3<sup>rd</sup> Year 1<sup>st</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
	Candidacy Oral Examination	-	0	-
		7	7	7

**3<sup>rd</sup> Year 2<sup>nd</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
	Candidacy Oral Examination	-	-	0
		7	7	7

**3<sup>rd</sup> Year Summer Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	4 (Section 9004)	4 (Section 9004)	4 (Section 9004)
	Proposal Examination	0	-	-
		4	4	4



**4<sup>th</sup> Year 1<sup>st</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
	Proposal Examination	-	0	-
		7	7	7

**4<sup>th</sup> Year 2<sup>nd</sup> Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	7 (Section 9007)	7 (Section 9007)	7 (Section 9007)
	Proposal Examination	-	-	0
		7	7	7

**4<sup>th</sup> Year Summer Semester**

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	4 (Section 9004)	4 (Section 9004)	4 (Section 9004)
	Final Defense Examination	0	-	-
		4	4	4

5<sup>th</sup> Year 1<sup>st</sup> Semester

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	-	7 (Section 9007)	7 (Section 9007)
	Final Defense Examination	-	0	-
		-	7	7

 5<sup>th</sup> Year 2<sup>nd</sup> Semester

Course No.	Course Name	Credit		
		Group 1	Group 2	Group 3
ECE800	Thesis	-	-	7 (Section 9007)
	Final Defense Examination	-	-	0
		-	-	7

## Course Descriptions

### PL 171 Research Methodology

The course focuses on introducing students to research topics and methodology, including critical thinking, scientific responsibilities, academic ethics, scientific writing, and publication. They will be trained on oral and written technical presentations on individual research, journal articles, or design projects

### PL 172 Seminars

The course focuses on how to think and analyze systematically for research and presentation. Also, in this class, students may be required to attend seminars and presentations related to their research topics such as conference presentations and workshops. The student will be required to summarize and present the outcome of his/her experience. Several guest speakers and excursions may be arranged for the students in this class. Moreover, knowledge on entrepreneurship may be included.

### ECE 700 Thesis

The course focuses on independent research work under the guidance of the designated student supervisor related to thesis work. This includes data analysis and thesis preparation.

### ECE 800 Thesis

The course focuses on independent research work under the guidance of the designated student supervisor related to thesis work. This includes data analysis and thesis preparation.

## Tuition & Fees

For students holding Bachelor degree, the 4-year program tuition fee is 764,000 Baht. This fee allows students to take each course only once. Students who fail and need to re-enrol each course must pay the additional fee of 9,500 Baht for each re-enrolment of PLXXX course and 9,500 Baht per credit for a re-enrolment of ECExXX course. It is noted that students are allowed to re-enrol each course for a maximum of one time only. All costs are subject to change without prior notice. The detail of the tuition fee payment is shown as follows.

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester
64,000 Baht	64,000 Baht	63,000 Baht

4 <sup>th</sup> Semester	5 <sup>th</sup> Semester	6 <sup>th</sup> Semester
64,000 Baht	64,000 Baht	63,000 Baht

7 <sup>th</sup> Semester	8 <sup>th</sup> Semester	9 <sup>th</sup> Semester
64,000 Baht	64,000 Baht	63,000 Baht

10 <sup>th</sup> Semester	11 <sup>th</sup> Semester	12 <sup>th</sup> Semester
64,000 Baht	64,000 Baht	63,000 Baht

For student holding Master degree, the 3-year program tuition fee is 516,000 Baht. This fee allows students to take each course only once. Students who fail and need to re-enrol each course must pay the additional fee of 9,500 Baht for each re-enrolment of PLXXX course and 9,500 Baht per credit for a re-enrolment of ECEXXX course. It is noted that students are allowed to re-enrol each course for a maximum of one time only. All costs are subject to change without prior notice. The detail of the tuition fee payment is shown as follows.

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester
64,000 Baht	64,000 Baht	63,000 Baht

4 <sup>th</sup> Semester	5 <sup>th</sup> Semester	6 <sup>th</sup> Semester
64,000 Baht	64,000 Baht	63,000 Baht

7 <sup>th</sup> Semester	8 <sup>th</sup> Semester	9 <sup>th</sup> Semester
45,000 Baht	45,000 Baht	44,000 Baht

Fees those are not included in the tuition fee and to be additionally paid in the first semester of the study

- Student Identification Card	Baht	400
- Accident Insurance	Baht	880 (Rate changed each year)
- Damage Deposit (refundable after graduation)*	Baht	2,000
- Orientation	Baht	2,000
<i>Total</i>	<i>Baht</i>	<i>5,280</i>

### Other fees those are not included in the tuition fee

- Registration for Graduate Student Status	Baht	1,000
- Transcript	Baht	100
- Other Credentials (each)	Baht	50
- Graduate Student Status Maintenance	Baht	9,500 per semester
- Graduation (based on the rate set each year)		
- Accident insurance (based on the rate set each year)		

\* Students will receive a refund of the damage deposit within one month from the date that the Board of Trustees confirms your status

### Graduation Requirements

The students must meet the following requirements to graduate with the D.Eng in Electrical and Computer Engineering

1. Completion all the required courses of the program
2. Pass all the required Examination (Candidacy, Proposal and Final Defense)
3. Pass the English qualification test as specified in the program.
4. Have at least two national or international journals (with peer reviews) in well-known database, i.e., ISI, SciMargo, Elsevier, etc.

### Time Limits

For students holding Bachelor degree, all requirements for D.Eng. must be completed by within a minimum period of 4 years and a maximum of 8 years. For student holding Master degree, all requirements for the degree must be completed with a minimum of 3 years and a maximum of 6 years.