

# Ph.D. CS

## DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

### 3-YEAR PROGRAM THESIS OPTIONS (DISSERTATION)

The Doctor of Philosophy Program in Computer Science will serve to

- Prepare researchers in the field of computer science who are capable of developing new computing technology.
- Produce highly knowledgeable university instructors in the field of computer science whose in-depth understanding of the knowledge critical thinking, and ability to assimilate new knowledge into their instruction will lead to the development of high quality computer scientists.



Study at **Hua Mak Campus**

### ADMISSION SCHEDULE 2017 / 2018

Admission Schedule	Semester 1/2017 (August - December 2017)	Semester 2/2017 (January - May 2018)	Semester 1/2018 (August - December 2018)	Semester 2/2018 (January - May 2019)
Application Filling Period	July 21, 2017	December 16, 2017	July 21, 2018	December 15, 2018
AU English proficiency Test	July 22, 2017	December 17, 2017	July 22, 2018	December 16, 2018
Examination Interview	July 22, 2017	December 20, 2017	July 24, 2018	December 18, 2018
AU Entrance Results	July 24, 2017	December 23, 2017	July 26, 2018	December 20, 2018
Registration Period	July 26 - August 11, 2017	January 3-13, 2018	July 30 - August 11, 2018	January 7-14, 2019
Instruction Begins	August 7, 2017	January 8, 2018	August 7, 2018	January 7, 2019

### ADMISSION REQUIREMENTS QUALIFICATION FOR ADMISSION

Admission to the program is granted to applicants with:

1. Master's degree in Computer Science or equivalent, or in other related technical fields, from the institutions accredited by the Ministry of Education, Thailand or by the official accreditation organization of the country where the institution is based.
2. GPA of at least 3.25 on a scale of 4.0, or equivalent
3. TOEFL score of at least 550 or IELTS score of at least 6.0 or pass the English Proficiency Examination
4. Three recommendation letters from lecturers or employers

### ENTRANCE REQUIREMENTS

1. A completed application form
2. Official transcript of the previous university attended (2 copies)
3. Bachelor's degree certificate (2 copies)
4. Citizen Identification Card and Residence Registration - For Thai Applicants (2 copies)
5. Passport - For Non-Thai Applicants (2 copies)
6. Photographs formal attire, not in graduation gown (Six, 1x1-inch size)
7. Letter of recommendation from former instructors or employers at the time of the application (2 letters)

*Note: All documents must be endorsed with signature and submitted in person within the last day application period. Otherwise, the application will not be considered and the applicant will not be allowed for the Admission interview.*

**DURATION:** 3 years

### ADMISSION FEE

Admission Fee	Baht	500
AU English Proficiency Test and Interview	Baht	500

### STUDY SYSTEM

1 <sup>st</sup> semester	August - December
2 <sup>nd</sup> semester	January - May

### VENUE & CLASS HOURS

- » **Hua Mak Campus**, Ramkhamhaeng 24 Road
 

Mon. - Fri.	6.30 P.M. - 9.30 P.M.
Sat. - Sun.	9.00 A.M. - 5.00 P.M.

### EXEMPTION

The AU English Proficiency Test can be exempted depending on which of the following conditions you satisfy.

- a TOEFL score of (iBT) 90 or an IELTS (Academic) score of at least 6.5 (Validation: Two years)
- a Bachelor's degree or a higher degree from native English speaking countries (e.g. USA, Canada, UK, and New Zealand)

### GRADUATION REQUIREMENTS

#### Type 2.1: Coursework and Dissertation

- Have completed all the courses of the curriculum
- Have obtained a cumulative grade point average of at least 3.00
- Have passed the proficiency test of English
- Have passed the qualifying examination
- Have passed the dissertation defense
- Have a publication or obtain an acceptance of a publication related to the content of the dissertation in a journal which has peer review and which is approved by the Academic Committee of the department
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline

### APPLICATIONS

**Hua Mak Campus**  
Admissions Center "P" Building, 1<sup>st</sup> floor,  
Ramkhamhaeng 24 Road, Bangkok 10240 Thailand  
**Office hours:**  
Monday - Friday 08:30 A.M. - 05:00 P.M.  
Saturday 08:00 A.M. - 04:30 P.M.  
Sunday 08:00 A.M. - 02:00 P.M.

### ABAC City Campus

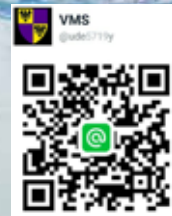
ABAC City Campus, ZEN @Central World, Level 14  
4,4/5 Rajdamri Rd., Phatumwan  
Bangkok 10330 Thailand  
**Office hours:**  
Monday - Friday 10:00 A.M. to 06:00 P.M.  
Saturday - Sunday 10:00 A.M. to 06:00 P.M.

### Suvarnabhumi Campus

Admissions Center SM115,  
88 Moo 8 Bang Na-Trad Km.26, Bangsangthong,  
Samuthprakarn, Thailand 10540  
**Office hours:**  
Monday - Friday 08:30 A.M. to 05:00 P.M.

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### CURRICULUM STRUCTURE

Foundation Courses	Non-credits
Remedial Courses	Non-credits
Elective Courses	12 credits
Dissertation	36 credits
<b>Total</b>	<b>48 credits</b>

### STUDY PLAN

#### FIRST YEAR

##### FIRST SEMESTER

Three Elective Courses

##### SECOND SEMESTER

One Elective Course  
Qualifying Examination

#### SECOND YEAR

##### FIRST SEMESTER

SC9000 Dissertation

##### SECOND SEMESTER

SC9000 Dissertation  
Prospectus Examination

#### THIRD YEAR

##### FIRST SEMESTER

SC9000 Dissertation

##### SECOND SEMESTER

SC9000 Dissertation  
Dissertation Examination

### COURSES

#### FOUNDATION COURSES

- SC6210 Principles of the Theory of Computation
- SC6212 Programming Languages and Compiler
- SC6222 Operating Systems Theory
- SC6221 Principles of Database Management Systems
- SC6231 Advanced Computer Architectures
- SC6310 Design and Analysis of Algorithms

#### ELECTIVE COURSES

- SC 8310 Randomized Algorithms
- SC 8311 Parallel Algorithms
- SC 8312 Distributed Algorithms
- SC 8313 Computational Geometry
- SC 8314 Information and Coding Theory
- SC 8315 Switching and Automata Theory
- SC 8321 Pattern Recognition and Machine Learning
- SC 8322 Image Processing
- SC 8324 Natural Language Processing
- SC 8325 Computer-Control Based Robotics and Automation Systems
- SC 8350 Computer and Data Security
- SC 8351 Relational Databases

- SC 8352 Computer Systems Performance Evaluation
- SC 8353 Real-Time Software Systems
- SC 8354 Advance Computer Communications
- SC 8370 Doctoral Seminar in Computer Science
- SC 8391 Data Mining
- SC 8405 Applied Computational Intelligence
- SC 8380-99 Advanced Topics in Computer Science

### DISSERTATION

- SC 9000 Dissertation

### ESTIMATED FEES

Fee Description	3-Years (6 Semesters)	
	THB	US\$
<b>Enrollment Fees:</b>		
Matriculation Fee (Thai Students)	9,000	273
Matriculation Fee (non-Thai Students)	21,500	652
Student's Activity Fee	7,000	213
<b>Registration Fees</b>		
Tuition Fee (THB 7,000 x 48 credits)	336,000	10,182
University Fee (THB 19,900 x 6 Semesters)	119,400	3,618
Annual Internet & Access Control Fee (THB 2,400/Year)	7,200	219
Annual Health & Life Insurance Fee (non-Thai Students, THB 5,000/Year)	15,000	455
<b>Approximate Total for Thai Students</b>	<b>478,600</b>	<b>14,503</b>
<b>Approximate Total for non-Thai Students</b>	<b>506,100</b>	<b>15,337</b>

#### Note:

- Tuition fee doesn't cover the followings:
  - Admission fee
  - Text books
  - AU Academic Writing Course (15,000 THB)
  - Tuition fee for non-credit courses
  - Thesis Final Defense
- The fees are subject to change at the university's discretion without prior notice.
- Currency exchange rate: US \$1 = THB 33

#### IMPORTANT

The provisional information statements set forth in this catalog should not be construed as the basis of any contract between a student and this institution. As such Assumption University reserves the right to change any provision listed in this catalog, including, but not limited to academic requirements for graduation. Every effort through the Office of Graduate Studies, will be made to keep students advised of any such changes.

*The University Registrar*

Last updated: October 2017

### UNIVERSITY ADMISSIONS CENTER (UNIAD)

#### HUA MAK CAMPUS

Tel. +66 (2) 300 4543-62 Ext.1244  
Tel. +66 (2) 719 1929  
Website : [www.grad.au.edu](http://www.grad.au.edu)  
E-mail : [gradadmission@au.edu](mailto:gradadmission@au.edu)

#### ABAC CITY CAMPUS

Zen @ Central World, 14<sup>th</sup> floor.  
E-mail : [citycampus@au.edu](mailto:citycampus@au.edu)  
Tel: +66 (2) 1009 115-8

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