มหาวิทยาลัยอัสสัมชัญ (เอแบค)
ASSUMPTION UNIVERSITY
Educating Intelligences and Active Minds to Change the World

VINCENT MARY SCHOOL OF SCIENCE AND TECHNOLOGY

Ph.D. CS

DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

3-YEAR PROGRAM (for Master degree holder) or 4-YEAR PROGRAM (for Bachelor degree holder)

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.

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. **Type 2.1 : Coursework and Dissertation (Master's degree holder)**
   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.
   Type 2.2 : Coursework and Dissertation (Bachelor's degree holder)
   Bachelor'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. Three recommendation letters from lecturers or employers

ENTRANCE REQUIREMENTS

1. A completed application form
2. Official transcript from the previous university attended (2 copies)
3. Master degree certificate for Type 2.1 or Bachelor degree certificate for Type 2.2
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 (3 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

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)

STUDY SYSTEM

1st semester	August - December
2nd 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.

GRADUATION REQUIREMENTS

Type 2.1 and 2.2: 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 the dissertation /part of dissertation published or obtained an acceptance of its publication in a national or international journal approved by the Academic Committee of the department. For Type 2.2, have the dissertation /part of dissertation published or obtained an acceptance of its publication in an additional international conference with peer review.
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline

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CURRICULUM STRUCTURE

Type 2.1 Coursework and Dissertation
(Master Degree Holder)

Foundation Courses	Non-Credit
Elective Courses	12 Credits
Dissertation	36 Credits
Total	**48 Credits**

Type 2.2 Coursework and Dissertation
(Bachelor Degree Holder)

Required Courses	9 Credits
Elective Courses	15 Credits
Dissertation	48 Credits
Total	**72 Credits**

STUDY PLAN FOR TYPE 2.1*

FIRST YEAR
FIRST SEMESTER
Three Elective Courses

SECOND SEMESTER
One Elective Course
Qualifying Examination

SECOND YEAR
FIRST SEMESTER
SC 9000 Dissertation

SECOND SEMESTER
SC 9000 Dissertation
Prospectus Examination

THIRD YEAR
FIRST SEMESTER
SC 9000 Dissertation

SECOND SEMESTER
SC 9000 Dissertation
Dissertation Examination

**: Applicants who do not studied some foundation courses in their previous degree will have to take them.*

STUDY PLAN FOR TYPE 2.2

FIRST YEAR
FIRST SEMESTER
SC 6201 Advanced Computing Systems
SC 6202 Computability, Complexity and Algorithms
SC 6212 Programming Languages and Compiler

SECOND SEMESTER
Three Elective Courses
Qualifying Examination

SECOND YEAR
FIRST SEMESTER
Two Elective Courses
SC 9000 Dissertation

SECOND SEMESTER
SC 9000 Dissertation
Prospectus Examination

THIRD YEAR
FIRST SEMESTER
SC 9000 Dissertation

SECOND SEMESTER
SC 9000 Dissertation

FORTH YEAR
FIRST SEMESTER
SC 9000 Dissertation

SECOND SEMESTER
SC 9000 Dissertation
Dissertation Examination

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: May 2018

COURSES

FOUNDATION COURSES (REQUIRED COURSES)

SC 6201	Advanced Computing Systems
SC 6202	Computability, Complexity and Algorithms
SC 6212	Programming Languages and Compiler

ELECTIVE COURSES

SC 6319	Computer Network and Internet Security
SC 6324	Principles of Software Engineering
SC 6360	Artificial Intelligence
SC 6362	Data Mining
SC 6365	Natural Language Understanding and Processing
SC 6399	Graduate Seminar in Computer Science
SC 6601	Cloud Computing and Big Data
SC 6602	Data Analysis and Visualization
SC 6603	Data Warehousing and Business Intelligences
SC 6604	Database Management Systems
SC 6610	Pattern Recognition and Machine Learning
SC 6611	Neural Networks and Deep Learning
SC 6612	Blockchain Technology and Cryptocurrency
SC 6613	Recommender Systems
SC 6620	Computer Graphics
SC 6621	Computer Vision
SC 6622	Augmented and Virtual Environments
SC 6630	User Interface and User Experience (UI/UX)
SC 6631	Web Technology, Applications and Security
SC 6632	Mobile Computing
SC 6640	Principles of the Theory of Computation
SC 6633	Ubiquitous Computing and Internet of Things (IoT)
SC 6400-99	Selected Topics in Computer Science
SC 6500-99	Directed Individual Study in Computer Science
SC 8311	Parallel Algorithms
SC 8322	Image Processing
SC 8323	Computational Models of Decision Making
SC 8324	Natural Language Processing
SC 8350	Computer and Data Security
SC 8354	Advanced Computer Communications
SC 8380-599	Advanced Topics in Computer Science

DISSERTATION

SC 9000	Dissertation

ESTIMATED FEES

Fee Description	**3-Years (6 Semesters)**	
Enrollment Fees:	THB	US$
Matriculation Fee (Thai Students)	10,000	303
Matriculation Fee (non-Thai Students)	22,500	681
Student's Activity Fee	7,000	213
Registration Fees		
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
Approximate Total for Thai Students	**479,600**	**14,535**
Approximate Total for non-Thai Students	**507,100**	**15,367**

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

UNIVERSITY ADMISSIONS CENTER (UNIAD)

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