M.S. CS
MASTER OF SCIENCE IN COMPUTER SCIENCE

2-YEAR PROGRAM, THESIS AND NON - THESIS OPTIONS

The Master of Science Program in Computer Science aspires to produce graduates who are capable of working efficiently in technology oriented environment. In order to meet this philosophy, the curriculum emphasizes:

- *True understanding of the principles of major topics in Computer Science.*
- *Analytical approaches in solving problems and decision making based on technology and research methodology.*
- *Innovative skills to create research work that is worthy in both academic and computer applications.*

Study at **Hua Mak Campus**

Admission Schedule

Admission Schedule	Semester 1/2020 (June - October 2020)	Semester 2/2020 (November - February 2021)
Application Deadline	Wed. 20 May 2020	Tue. 20 October 2020
AU EPS Test and Interview	Sat. 23 May 2020	Sat. 24 October 2020
Entrance Results	Tue. 26 May 2020	Tue. 27 October 2020
Registraton Period	1 - 5 June 2020	2 - 6 November 2020
Instruction Begines	Mon. 8 June 2020	Mon. 9 November 2020

QUALIFICATION FOR ADMISSION
The following admission requirements (recommended) for any prospective students to enter the program.
1. Bachelor's degree from an accredited institution. The applicants must graduate from the following academic fields: Computer Science, Information Technology, Telecommunications Science, Engineering or related tield.
2. Three recommendation letters from lecturers or employers
3. Required GPA of at least 2.5

ENTRANCE REQUIREMENTS
1. A completed application form
2. Official transcript from 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 (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.

ADMISSION FEE   1,000 THB
(AU English Proficiency Test and Interview)

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.

DURATION: 2 years

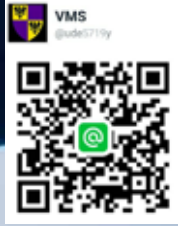## GRADUATION REQUIREMENTS
Plan A : Coursework and Thesis
- Have completed all the courses of the curriculum.
- Have obtained a cumulative grade point average of at least 3.00.
- Have passed the thesis defense.
- Have a publication or obtain an acceptance of a publication related to the content of the thesis in a journal or an international conference proceeding 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.
- Have passed Research Planning and Management Seminar

Plan B: Coursework and Independent Study
- Have completed all the courses of the curriculum.
- Have obtained a cumulative grade point average of at least 3.00.
- Have passed the comprehensive examination.
- Have passed the project presentation.
- Have obtained library and financial clearance from the University.
- Have demonstrated good behavior and discipline.
- Have passed Research Planning and Management Seminar.

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STUDY PLAN

Thesis Option (Plan A)	12 credits	Coursework and Independent Study (Plan B)	
Preparatory Courses	Non-credit	Preparatory Courses	Non-credit
Required Courses	9 credits	Required Courses	9 credits
Elective Courses	15 credits	Elective Courses	24 credits
Thesis	12 credits	Project	3 credits
Total	**36 credits**	**Total**	**36 credits**

YEAR 1
Semester 1

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

Semester 2

Plan A	Three Elective Courses

YEAR 2
Semester 1

Plan A	Two Elective Courses + SC 7000 Thesis
Plan B	Three Elective Courses

Semester 2

Plan A	SC 7000 Thesis
Plan B	Two Elective Courses + SC6900 Master Project + Comprehensive Examination

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CURRICULUM

Preparatory Courses

ES 5001	English for Graduate Study
SC 5211	Computer Programming & Data Structure
SC5212	Computing Systems

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

Independent study

SC6900	Master Project

Thesis

SC7000	Thesis

ESTIMATED FEES

Installments	Thai Students (THB)	Non Thai Students (THB)	Non Thai Students (US$)
1st Installments	133,100	150,600	5,020
2nd Installments	80,100	80,100	2,670
3rd Installments	91,100	96,100	3,203
4th Installments	80,100	80,100	2,670
Total	**384,400**	**406,900**	**13,563**

Note:
1. The total fee above doesn't cover the followings:
   - Admission fee
   - Text books
2. The fees are subject to change at the university's discretion without prior notice.
3. Currency exchange rate: US $1 = THB 30