CS@SIT

Announcement
Electives semester 1/2018
(For juniors ID 59 and seniors ID 58)

Computer Science programme will offer 7 CSC Major elective courses for semester 1/2018.

Important note: The elective course selection process will use **a balloting system.**
This following are the steps.

1. Seniors reserve course on Wednesday 23 May, 2018 at SIT web site (CS News) Start at 9.00 am.- 12.00 pm. Available seats for each elective will be posted during the reservation process.

2. Name list of successful reservation will be posted by 5 pm.

3. Seniors and juniors reserve course on Thursday 24 May, 2018 at SIT web site (CS News) Start at 9.00 am.- 12.00 pm. Available seats for each elective will be posted during the reservation process.

4. Name list of successful reservation will be posted by Friday 25 May, 2018.

*However, juniors who can reserve a major elective must have the minimum GPAX more than ≥2.00

** The class reserved by less than 15 students may be cancelled.

***Students who would like to change courses after reservation; you must submit the request form for change course for Chairperson of Computer Science approval.

Major Elective : 18 credits are required for graduation

1. CSC 323 Management Information System (25 Students)
2. CSC 433 Software Quality Assurance (25 Students)
3. CSC 531 Data Mining (25 Students)
4. CSC 532 Machine Learning (25 Students)
5. CSC 541 Computer Security Management (25 Students)
6. CSC 493 Special Topic III: Scala language (a functional approach to data science) (25 Students)
7. CSC 494 Special Topic IV: Information Retrieval (15 students)

Junior Year courses/semester 1/2018 *(CS ID 59)*

Code	Subjects	Credits
CSC 340	Artificial Intelligence	3
CSC 424	Software Project Management	3
CSC xxx	CS Elective I	3
GEN 351	Modern Management and Leadership	3
LNG 241	Academic Writing I	3
MTH 101	Mathematic I	3
Total		18

- Students who register more than 19 credits must submit the request form for registering more than required credits at New ACIS system.

Senior Year courses/semester 1/2018 *(CS ID 58)*

Code	Subjects	Credits
CSC 371	Distributed System	3
CSC 499	Computer Science Project II	3
CSC xxx	Computer Science Elective 3	3
CSC xxx	Computer Science Elective 4	3
GEN xxx	GEN Elective 2	3
Total		15

- Students who register more than 19 credits must submit the request form for registering more than required credits at New ACIS system.

Computer Science Electives

1. CSC 323 Management Information Systems
Prerequisite: -
Lecturer: Asst.Prof.Dr.Bunthit Watanapa

This course covers the following topics: introduction to computer-based information system, using technology as a competitive advantage, business computing system theory; system life cycle methodologies, computing technology and computer processing; database management system and data communications as a foundation for IS.

2. CSC 433 Software Quality Assurance
Prerequisite: CSC 321 Software Engineering
Lecturer: Dr. Vithida Chongsuphajaisiddhi

The first part of this course will look at the concept of software quality assurance. We'll talk about SQA process and look at some SQA activities in detail. The first part is very theoretical. Lots of definitions and explanation.

The second part will shift to software metrics, how we can measure the quality of software, some formula that can be used to indicate the quality of software. This second part involves a lot of calculation. You may need a scientific calculator.

3. CSC 531 Data Mining
Prerequisite: CSC 209 Data Structures and CSC 210 Analysis and Design of Algorithms
Lecturer: Asst.Prof.Dr.Chakarida Nukoolkit

This course covers the following topics: Introduction, data preprocessing, mining frequent patterns, associations, and correlations, classifications and prediction, model evaluation, accuracy and error measure, cluster analysis, mining stream, time-series, and sequence data, social network analysis, mining multimedia, text mining, mining the World Wide Web, applications and trends in data mining.

4. CSC 532 Machine Learning
Prerequisite: CSC 261 Statistics for Scientist and CSC 105 Computer Programming II
Lecturer: Assoc.Prof. Dr. Jonathan H. Chan

This course covers the following topics: introduction to machine learning, probability review, linear regression models, classification, Bayesian learning, decision tree learning, artificial neural networks, clustering, genetic algorithm, and principal component analysis. The course project will cover practical case studies on application of machine learning.

5. CSC 541 Computer Security Management
Prerequisite: CSC 320 Computer Networks
Lecturer: Dr. Anuchart Tassanaviboon

Computer security principles, managerial aspects of security: confidentiality, privacy, volatility in computerized information, protection of information against unauthorized observation, modification, and denial of service, encryption, legal and ethical issues, and disaster recovery planning.

6. CSC 493 Special Topic III: Scala language (a functional approach to data science)
Prerequisite: CSC 261 Statistics for Scientist and CSC 105 Computer Programming II
Lecturer: Prof. Sanzo Miyazawa

Introduction; Scala REPL, Scala and FP basics; Scala collection library (type-generic code, parallel collection);
linear algebra library Breeze;
(parallel) Monte Carlo simulation; Markov chain Monte Carlo;
Linear regression, Generalized linear models;
sbt (Scala buid tool); ScalaDoc; CSV and DataFrame;
Tools for interoperability with R and Python; Spark.

7. CSC 494 Special Topic IV: Information Retrieval
Prerequisite: -
Lecturer: Assoc.Prof.Dr. Xiangmin Zhang
