

CS4211**FORMAL METHODS FOR SOFTWARE ENGINEERING**

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 35

Tags: –

PROF Abhik Roychoudhury

Anonymous Feedback

Printer Friendly

Collapse All

Learning Outcomes

The students will learn the differentiation between requirements, models and code. Specification languages for describing desirable properties of software will be discussed. Formally verifying such properties for both models and code, will be discussed in depth.

Prerequisites

TopCS2103 or its equivalent

Teaching Modes

TopLectures, Revision, Hands-on Project, Tests

Syllabus

- Top1. State-based and scenario-based models
2. Temporal Logics
3. Model Checking Algorithms
4. Software Model Checking (using Abstraction Refinement)
5. Software verification and validation using symbolic execution and constraint solving
6. Theorem proving via Hoare-style program verification.

Workload

Top2-1-0-3-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Abhik Roychoudhury

COMPUTER SCIENCE

www.comp.nus.edu.sg/~abhik

Lecturer

About Me:

From <http://www.comp.nus.edu.sg/~abhik>

Staff Photograph

GAO XIANG

School of Computing

Teaching Assistant

Staff Photograph

DR **Zhen Dong**

COMPUTER SCIENCE

RESEARCH FELLOW

AS6-04-11

Research Fellow

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About Myself

About Myself :

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Weblinks

A collection of all readings to Live Sequence Charts

http://wiki.weizmann.ac.il/playgo/index.php/Live__sequence__charts

A definitive paper on Live Sequence Charts, as representation of requirements

<http://www.wisdom.weizmann.ac.il/~harel/SCANNED.PAPERS/LSCs.pdf>

SPIN model checker website

<http://spinroot.com/spin/whatispin.html>

Sections 4 and 5 only

<http://www.cs.cmu.edu/~emc/papers/Invited%20Conference%20Articles/Verification%20Tools%20for%20Finite%20State%20Concurrent%20Systems.pdf>

<http://www.cs.cmu.edu/~emc/papers/Conference%20Papers/Grand%20Challenge%20Model%20Check%20Softw>

TimeTable

CS4211 Exam : Tuesday,
28-Nov-2017 (Morning)

Total 2 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Tuesday	900	1100	COM1-0212
1	TUTORIAL	EVERY WEEK	Tuesday	1100	1200	COM1-0212

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS4212

COMPILER DESIGN

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 7

Tags: –

ASSOC PROF Khoo Siau Cheng

Anonymous Feedback

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Learning Outcomes

The objective of this module is to introduce the principal ideas behind program compilation, and discusses various techniques for program parsing, program analysis, program optimisation, and run-time organisation required for program execution. Topics covered include regular expressions, context-free grammars, lexical analysis, syntax analysis; different algorithms for parsing codes, such as top-down parsing, bottom-up parsing; translation to abstract syntax using modern parser generator technology, intermediate representation, semantics analysis, type system, un-optimised code generation, code optimisation, data-flow analysis, instruction scheduling.

By the end of the course, student will have built a compiler for a simple program-

ming language, called mOOL, and have it run on devices (or device simulators).

Note: All programming assignments done in this course will be written in OCaml.

Prerequisites

TopCS2104 Programming Language

NOTE: Programming Exercises will be done in OCaml. Some elementary programming exercises will be provided to help students in picking up OCaml. Students are required to use OCaml throughout the entire course. If one has problem using OCaml, one will not be able to build the compiler in the course, and will be severely disadvantaged.

Teaching Modes

TopClassroom teaching + tutorials (during class) + possibly some help sessions.

Use of IVLE discussion forum is highly encouraged, and **students' contributions to the sharing of knowledge at the forum will be graded!**

Schedule

TopPlease refer to the lesson plan.

Syllabus

TopPlease refer to the lesson plan

Assessment

Top**CA: 60%**

- **One written assignments,10%**
- **Three programming assignments, totaling 40%**
 - The three assignments combined will build a compiler for a small object-based language called **mOOL**.
 - The implementing programming language (the language used to build mOOL Compiler) is **Ocaml**.

- Some project assignment help sessions will be conducted on specific Saturdays; attendance is not compulsory.
- The three assignments focus on three phases of compiler design:
 1. (Individual Assignment) Lexical and Syntax analysis, **10% of grade**
 2. (Individual Assignment) Semantic Analysis and intermediate code generation, **15% of grade**
 3. (Group of 3 Assignment) Machine code generation, **15% of grade**
- **Sharing Assessment, 10%**
 - This component requires you to share your knowledge with your classmates through IVLE forum discussion. The purpose of sharing is to help other students in the class, but not to the extent of causing plagiarism. Details will be provided during lecture.
 - **Please subscribe to the IVLE Discussion Forum yourself.** If you don't subscribe to it, you will not be able to earn any grade from the Sharing Assignment.

Exam: 40%

- **Mid-term Test: 15%**
 - This will be conducted during lecture hour around middle of the semester.
- **Final exam: 25%**

Workload

Top

Some additional sessions might be conducted to help students with the assignments. Depending on availability, it will be conducted either on Saturday or on weekday (day times).

By default, tutorial and lectures are held at the same night to accommodate the availability of part-time students.

Usual workload: 2-1-0-3-3

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

ASSOC PROF **Khoo Siau Cheng**

COMPUTER SCIENCE

ASSOC PROFESSOR

COM2-04-11

65166730

Lecturer

Staff Photograph

NGUYEN THANH TOAN

School of Computing

Teaching Assistant

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About Myself

About Myself :

Close

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Weblinks

There are no weblinks.

TimeTable

CS4212 Exam : Monday,
27-Nov-2017 (Evening)

Total 2 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Thursday	900	1100	VCRm
1	TUTORIAL	EVERY WEEK	Thursday	1100	1200	VCRm

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
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(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS4232

THEORY OF COMPUTATION

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 21

Tags: –

PROF Stephan, Frank Christian

Anonymous Feedback

Printer Friendly

Collapse All

Prerequisites

TopCS1231 or CS1231S or any level-2 MA module

Workload

Top2-1-0-3-3

Workload Components : A-B-C-D-E

A: no. of lecture hours per week
B: no. of tutorial hours per week
C: no. of lab hours per week
D: no. of hours for projects, assignments, fieldwork etc per week
E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Stephan, Frank Christian

MATHEMATICS

Lecturer

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About Myself

About Myself :

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Webpage of this course, will contain all relevant information; on the webpage there is also a link to the lecture notes and slides on which this course is based.

<http://www.comp.nus.edu.sg/~fstephan/theoryofcomputation.html>

TimeTable

CS4232 Exam : Monday,
04-Dec-2017 (Afternoon)

Total 4 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Wednesday	1000	1200	VCRm
1	TUTORIAL	EVERY WEEK	Monday	1300	1400	COM1-0208
2	TUTORIAL	EVERY WEEK	Monday	1400	1500	COM1-0208
3	TUTORIAL	EVERY WEEK	Monday	1200	1300	COM1-0208

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS4234

OPTIMISATION ALGORITHMS

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 25

Tags: –

DR Steven Halim

Anonymous Feedback

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CS4234 uses Steven's Private IVLE

TopPlease visit and bookmark <http://www.comp.nus.edu.sg/~stevenha/cs4234.html>

Prerequisites

TopMA1101R Linear Algebra I and CS3230 Design and Analysis of Algorithms

Workload

Top2-1-0-4-3

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Steven Halim

COMPUTER SCIENCE

www.comp.nus.edu.sg/~stevenha

Lecturer

Staff Photograph

MUHAMMAD RAIS FATHIN MUDZAKIR

School of Computing

Tutor

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About Myself

About Myself :

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Weblinks

There are no weblinks.

TimeTable

CS4234 Exam : Wednesday,
29-Nov-2017 (Afternoon)

Total 4 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Tuesday	1200	1400	COM1-0204
1	TUTORIAL	EVERY WEEK	Thursday	1400	1500	COM1-0203
2	TUTORIAL	EVERY WEEK	Thursday	1500	1600	COM1-0203
3	TUTORIAL	EVERY WEEK	Thursday	1600	1700	COM1-0203

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS4236

CRYPTOGRAPHY THEORY AND PRACTICE

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 33

Tags: -

ASSOC PROF Chang Ee-Chien

Printer Friendly

Collapse All

Prerequisites

TopCS1231 and CS2107 and (CS2010 or CS2020 or CS2040 or CS2040C)

Preclusions

TopNil

Workload

Top2-1-0-3-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Chang Ee-Chien

COMPUTER SCIENCE

Lecturer

About Me:

www.comp.nus.edu.sg/~changeec

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About Myself

About Myself :

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Weblinks

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TimeTable

CS4236 Exam : Saturday,
25-Nov-2017 (Afternoon)

Total 2 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Thursday	1830	2030	LT15
1	TUTORIAL	EVERY WEEK	Thursday	2030	2130	LT15

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS4238

COMPUTER SECURITY PRACTICE

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 32

Tags: -

DR KANG Min Suk

Printer Friendly

Collapse All

Prerequisites

TopCS3235 Computer Security

Preclusions

TopNil

Workload

Top2-0-1-3-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

KANG Min Suk

COMPUTER SCIENCE

Lecturer

About Me:

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About Myself

About Myself :

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Weblinks

There are no weblinks.

TimeTable

Total 2 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LABORATORY	EVERY WEEK	Tuesday	2030	2130	COM1-B113
1	LECTURE	EVERY WEEK	Tuesday	1830	2030	COM1-B113

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS4243

COMPUTER VISION AND PATTERN RECOGNITION

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 50

Tags: –

ASSOC PROF Ng Teck Khim

Printer Friendly

Collapse All

Prerequisites

Top(CS1020 or CS1020E or CS2020 or ((CS2030 or CS2113/T) and (CS2040 or CS2040C))) and (MA1101R or MA1506) and (MA1102R or MA1505C or MA1505 or MA1521), and (ST1232 or ST2131 or ST2334)

Preclusions

TopNil

Workload

Top3-0-0-3-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Ng Teck Khim

COMPUTER SCIENCE

www.comp.nus.edu.sg/~ngtk

Lecturer

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About Myself

About Myself :

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There are no weblinks.

TimeTable

CS4243 Exam : Wednesday,
29-Nov-2017 (Evening)

Total 6 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LABORATORY	EVERY WEEK	Tuesday	1400	1600	AS6-0421
2	LABORATORY	EVERY WEEK	Tuesday	1600	1800	AS6-0421
3	LABORATORY	EVERY WEEK	Tuesday	1830	2030	AS6-0421
4	LABORATORY	EVERY WEEK	Thursday	1600	1800	AS6-0421
5	LABORATORY	EVERY WEEK	Friday	1000	1200	AS6-0421
1	LECTURE	EVERY WEEK	Monday	1830	2030	LT15

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.

(You may refer to the weeks from NUS Academic Calendar.)

- This information might not be applicable to all modules.

CS5231

SYSTEMS SECURITY

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 18

Tags: -

ASSOC PROF Liang Zhenkai

Printer Friendly

Collapse All

Prerequisites

TopCS3235 Computer Security

Workload

Top2-0-0-4-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Liang Zhenkai

COMPUTER SCIENCE

Lecturer

About Me:

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About Myself

About Myself :

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Weblinks

There are no weblinks.

TimeTable

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Friday	1830	2030	i3-Aud

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS5242

NEURAL NETWORKS AND DEEP LEARNING

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 5

Tags: –

ASSOC PROF Lee Hwee Kuan

Printer Friendly

Collapse All

Prerequisites

TopCS3244 Machine Learning

Workload

Top2-0-0-5-3

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Lee Hwee Kuan

COMPUTER SCIENCE

Lecturer

Staff Photograph

DR Wang Wei

COMPUTER SCIENCE

ASSISTANT PROFESSOR

COM2-04-09

66013785

Co-Lecturer

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About Myself

About Myself :

Close

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Weblinks

There are no weblinks.

TimeTable

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Thursday	1830	2030	i3-Aud

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS5248

SYSTEMS SUPPORT FOR CONTINUOUS MEDIA

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 0

Tags: –

ASSOC PROF Roger Zimmermann

Anonymous Feedback

Printer Friendly

Collapse All

Learning Outcomes

TopThis module is targeted at computer science graduate students and covers the major aspects of building streaming media applications – from coding to transmission to playback. Issues such as transport protocols, control protocols, caching, buffering, synchronisation and adaptations will be examined.

Prerequisites

TopCS2106 Introduction to Operating Systems and CS4226 Internet Architecture.

Schedule

TopLectures are every Wednesday from 18:30 to 20:30 in room COM1-0212.

Syllabus

TopFor a detailed syllabus please see <http://www.comp.nus.edu.sg/-cs5248/schedule.html>.

Assessment

TopThis module will be graded on **100% CA** (i.e., there will be no final exam). The CA will include a midterm, :Em
2 quizzes, and a substantial project.

Workload

Top2-0-0-6-2

Workload Components : A-B-C-D-E

A: no. of lecture hours per week
 B: no. of tutorial hours per week
 C: no. of lab hours per week
 D: no. of hours for projects, assignments, fieldwork etc per week
 E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Roger Zimmermann
 COMPUTER SCIENCE
 Lecturer

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About Myself

About Myself :

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Weblinks

There are no weblinks.

TimeTable

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Wednesday	1830	2030	COM1-0212

Class	Type	Week Type	Week Day	Start	End	Room
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Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS5340

UNCERTAINTY MODELLING IN AI

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 3

Tags: –

DR Lee Gim Hee

Anonymous Feedback

Printer Friendly

Collapse All

Learning Outcomes

The module covers modelling methods that are suitable for reasoning with uncertainty. The main focus will be on probabilistic models including Bayesian networks and Markov networks. Topics include representing conditional independence, building graphical models, inference using graphical models and learning from data. Selected applications in various domains such as speech, vision, natural language processing, medical informatics, bioinformatics, data mining and others will be discussed.

Prerequisites

Top(ST1232 Statistics for Life Sciences or ST2131 Probability or ST2334 Probability and Statistics) and CS3243 Introduction to Artificial Intelligence

Workload

Top3-0-0-3-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Lee Gim Hee

COMPUTER SCIENCE

Lecturer

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About Myself

About Myself :

Close

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Weblinks

There are no weblinks.

TimeTable

CS5340 Exam : Wednesday,
06-Dec-2017 (Afternoon)

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Wednesday	1830	2130	LT15

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

CS6234

ADVANCED ALGORITHMS

2017/2018, Semester 1

School of Computing (Computer Science)

Modular Credits: 4

Class Size: 0

Tags: –

DR Yair Zick

Anonymous Feedback

Printer Friendly

Collapse All

Learning Outcomes

TopThis module is aimed at graduate students who are doing or intend to do advanced research in algorithms design and analysis in all areas of computer science. The module covers advanced material on combinatorial algorithms, with emphasis on efficient algorithms, and explores their use in a variety of application areas. Topics covered include, but are not restricted to, linear programming,

graph matching and network congestion, approximation algorithms, randomized algorithms, online algorithms, and learning algorithms. The module will be a seminar-based module that will expose students to current research in these areas.

By the end of the course students will be able to:

1. Independently explore and understand advanced topics in algorithms.
2. Understand and write formal mathematical proofs.
3. Employ fundamental concepts from theoretical computer science in their own research.

Prerequisites

TopStudents are encouraged to take CS5234 as a prerequisite. If a student has not taken CS5234 but still wishes to attend the course, please email Prof. Yair Zick.

Assessment

TopGuidelines

Students will be assessed on their group presentation (two presentations during the course), and based on ongoing classroom activity.

Points weightage:

Presentation 1 20%

Presentation 2 30%

Class activities 50%

Presentation

Each group will be given 40 minutes (+15 minutes Q&A) to present their topic. You are encouraged to send me a copy of your slides and discuss any potential issues ahead of time.

Please send me a copy of the presentation (in ppt/pdf format) before class.

Grading Guidelines:

Slides

- are clear and easy to follow
- state the key elements of the topic
- present at least one fundamental concept in depth.
- are well-designed, and have no spelling/grammar issues

Speakers

- are clear and articulate
- are able to answer questions knowledgeably and confidently
- manage their time well (neither over nor under the time limit).
- present well: maintain eye contact, maintain interest, and engage the audience

Class Activity

The second half of each class will be devoted to solving an assignment. Students will be given the assignment a week in advance, so that they have time to sit with their group and discuss it.

We will have a one hour classroom activity on the assignment. At the end of each presentation, each group will be asked to write their solution to a randomly assigned problem from the assignment (you'll be given 15 minutes to do so). After this – a student from each group will be randomly selected to present the solution (or by written solution if no student is selected to present). Final grade to all members is determined by presentation quality, or whiteboard solution quality if group did not present. If the student presenting does not know the answer, another may come to replace them but suffer a grade deduction.

Teaching Modes

Students will present in class on course topics, and will conduct in-class activities to facilitate understanding of course material. The course has no midterm or final examination.

Preclusions

TopNil

Workload

Top2-0-0-5-3

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week
D: no. of hours for projects, assignments, fieldwork etc per week
E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Yair Zick

COMPUTER SCIENCE

Lecturer

About Me:

Assistant Professor

NUS School of Computing

COM2 02-60

dcsyaz@nus.edu.sg

Staff Photograph

DEBABROTA BASU

School of Computing

Teaching Assistant

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About Myself

About Myself :

Close

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Weblinks

There are no weblinks.

TimeTable

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Tuesday	1400	1600	i3-0344

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

IS4204

IT GOVERNANCE

2017/2018, Semester 1

School of Computing (Information Systems & Analytics)

Modular Credits: 4

Class Size: 43

Tags: –

PROF Alex Siow Yuen Khong

Printer Friendly

Collapse All

Prerequisites

TopCompleted 80 MCs

Workload

Top2-1-0-3-4

Workload Components : A-B-C-D-E

- A: no. of lecture hours per week
B: no. of tutorial hours per week
C: no. of lab hours per week
D: no. of hours for projects, assignments, fieldwork etc per week
E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Alex Siow Yuen Khong

INFORMATION SYSTEMS & ANALYTICS

Lecturer

About Me:

I am currently Professor of Practice and Director, Strategic Technology Management Institute, as well as Director, Centre for Health Informatics. Previously I was Managing Director, Health & Public Service, in Accenture Singapore. Before that I was Senior Vice President of StarHub and before that, CIO of HDB.

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About Myself

About Myself :

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There are no weblinks.

TimeTable

IS4204 Exam : Friday, 01-Dec-2017
(Afternoon)

Total 5 items

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Tuesday	1500	1700	RMI-SR1
1	TUTORIAL	EVERY WEEK	Tuesday	1700	1800	RMI-SR1
2	TUTORIAL	EVERY WEEK	Monday	1000	1100	COM2-0108
3	TUTORIAL	EVERY WEEK	Monday	1100	1200	COM2-0108
4	TUTORIAL	EVERY WEEK	Monday	900	1000	COM2-0108

Note:

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- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

IS5002

CONTEMPORARY IS MANAGEMENT

2017/2018, Semester 1

School of Computing (Information Systems & Analytics)

Modular Credits: 4

Class Size: 0

Tags: –

ASSOC PROF Tan Chuan Hoo

Printer Friendly

Collapse All

Teaching Modes

Top2 hours weekly seminar.

Schedule

Top

Week

Topic

Deliverable

01

Module introduction

- Module overview
- Module assessment and expectation

Digital Transformation I

- Fundamentals of digital transformation
- Organizational IT restructuring

Part 1: Digital Transformation

02

Digital Transformation II

- Legacy systems and reengineering

03

Digital Transformation III

- Software migration

04

Digital Transformation III

- Systems integration and patterns

Report 1 due

Part II: Enterprise IT Governance and Management

05

IT Stakeholder Analysis and Management

06

Enterprise IT Governance I

- challenges of enterprise IT governance
- objectives, approaches and key successful factors of enterprise IT governance
- how can maturity of enterprise IT governance be improved?

Report 2 due

Recess week

07

In-class project discussion and consultation

08

Enterprise IT Governance II

- evaluation of maturity of enterprise IT governance

Individual research assignment due

Part III: Team-based Innovation Management

09

Agile Software Development and DevOps

10

Standards and Compliance

Part IV: Digitalization

11

Digitalization I

- Digital Media management
- Cross-platform integration

Report 3 due

12

Digitalization II

- Digitalization in SME

13

Module summary and revision

Final project report due

* Subjected to changes

Synopsis

The deployment, management and utilization of digital technology in its various forms denote the continuous and rapid development of information systems in enterprises. Often, large volume of data and content is created, generated and stored on a daily basis and the information technology (IT) employees in an enterprise are also required to go beyond merely providing technological supports to an enterprise (or connected enterprises) but to value add and lead technological innovation. Given the continuous emergence of technologies and the touted benefits they can bring to the enterprise, careful and proper, yet up-to date, management IT portfolio is required. What steps should enterprises take so as to manage and capitalize on them? Is it possible to continuously transform enterprises with the latest technologies without wreaking havoc to the business operations? What kind of actionable and effectual plans and governance should be in place? Even more importantly, how can enterprises prepare themselves for the future in the face of burgeoning and exponential growth in business complexity and emerging platform economy? This module takes a highly interactive mode of learning where the foundational concepts of digital transformation and related topics are taught. Using these concepts, students then extrapolate on existing technological and business trends and needs for an enterprise (real or fictional), eventually producing both short and long term plans of some duration (say, three to five years) for the enterprise's management and utilization of information systems.

Workload

Top2-0-0-4-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week
B: no. of tutorial hours per week
C: no. of lab hours per week
D: no. of hours for projects, assignments, fieldwork etc per week
E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Tan Chuan Hoo

INFORMATION SYSTEMS & ANALYTICS

Lecturer

About Me:

Office: COM2 #04-12

Email: tancho@comp.nus.edu.sg

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About Myself

About Myself :

Close

Save

Weblinks

There are no weblinks.

TimeTable

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Wednesday	1830	2030	COM1-0204

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

IS5117

ELECTRONIC GOVERNMENT

2017/2018, Semester 1

School of Computing (Information Systems & Analytics)

Modular Credits: 4

Class Size: 0

Tags: –

DR Isam Faik

Printer Friendly

Collapse All

Prerequisites

TopCS3251 or IS3243

Workload

Top2-0-0-2-6

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Isam Faik

INFORMATION SYSTEMS & ANALYTICS

Lecturer

About Me:

Office: COM2, Level 4, Room 20

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About Myself

About Myself :

Close

Save

Weblinks

There are no weblinks.

TimeTable

IS5117 Exam : Wednesday,
29-Nov-2017 (Morning)

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Monday	1830	2030	COM1-0206

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
- Refer to your department for information on commencement of tutorial classes, or confirm with your module coordinator so that you do not miss any classes.
(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.

IS6004

ECONOMETRICS FOR IS RESEARCH

2017/2018, Semester 1

School of Computing (Information Systems & Analytics)

Modular Credits: 4

Class Size: 0

Tags: –

DR Hyelim Oh

Printer Friendly

Collapse All

Workload

Top3-0-0-3-4

Workload Components : A-B-C-D-E

A: no. of lecture hours per week

B: no. of tutorial hours per week

C: no. of lab hours per week

D: no. of hours for projects, assignments, fieldwork etc per week

E: no. of hours for preparatory work by a student per week

Faculty

Staff Photograph

Hyelim Oh

INFORMATION SYSTEMS & ANALYTICS

www.comp.nus.edu.sg/is/bio/Hyelim.html

Lecturer

About Me:

-

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About Myself

About Myself :

Close

Save

Weblinks

There are no weblinks.

TimeTable

IS6004 Exam : Tuesday,
05-Dec-2017 (Afternoon)

Total 1 item

Class	Type	Week Type	Week Day	Start	End	Room
1	LECTURE	EVERY WEEK	Friday	1200	1500	i3-0344

Note:

- Class timetable is subject to changes. Check with your Faculty Dean's Office for updates.
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(You may refer to the weeks from NUS Academic Calendar.)
- This information might not be applicable to all modules.