Study Scheme

I. M.Phil.-Ph.D. Programme in Computer Science and Engineering (Full-time and/or Part-time)

(Applicable to students admitted in 2006-07 and thereafter)

A. M.Phil. Student (Full-time)

1. Coursework Requirement

   (a) Lecture courses:
   
   Each M.Phil. student is required to complete a minimum of 12 units of postgraduate courses offered by the Division or related courses as approved by the Division.

   (b) Thesis research / monitoring courses:
   
   Each M.Phil. student must register for the Thesis Research Course.

      (i) Year One M.Phil. student : CSCI8006 in both terms

      (ii) Year Two M.Phil. student : CSCI8012 in both terms

      (iii) Continuing M.Phil. student : CSCI8003

   (c) Other courses:

   Each M.Phil. student is required to take CSCI6500 ‘Seminar for M.Phil. Studies’ in every term throughout his/her normative study period.

2. Other Requirements

   (a) Students must fulfill the Term Assessment Requirement. A student who obtains a cumulative grade point average (GPA) below 2.0 in the preceding term or receives a failure grade in thesis monitoring courses (for Research Postgraduate Programmes) will be put on academic probation. For details, please refer to Clause 14.0 “Unsatisfactory Performance and Discontinuation of Studies” of the General Regulations Governing Postgraduate Studies which can be accessed from the Graduate School Homepage: http://www.cuhk.edu.hk/gss.

   (b) Students may be required by the Division to complete other courses, such as ELTU5501 Postgraduate Presentation Skills or its equivalent, if deemed necessary.

   (c) Unless otherwise specified, a minimum grade of "C-" is required in each of the courses taken.

   (d) Students are required to submit a term paper followed by an oral presentation at the end of each term.

   (e) Students are required to submit a research thesis and pass an oral examination for graduation.

   (f) IT Proficiency Test (Applicable to students admitted in 2011-12 and before. Please refer to “Student IT Competence”.)

   (g) Complete an Improving Postgraduate Learning (IPL) module on “Observing Intellectual Property and Copyright Law during Research”. This will be an online module and relevant information can be accessed from the website: http://www.cuhk.edu.hk/clear/ipl/29.htm.

3 Remarks
Transfer of candidature to doctoral degree programme:

A M.Phil. student who wishes to transfer to the doctoral degree programme shall have to fulfill the University’s regulation governing the transfer of candidature. In addition, he/she will have to satisfy the following requirements:

(i) has completed at least 4 graduate courses, with each course grade at “B-” or above;
(ii) the GPA of courses taken must be at least 2.6 for each term; and
(iii) has demonstrated his/her research ability in the opinion of the Division.

B. Ph.D. Student (Pre-candidacy)
(Applicable to full-time students admitted in 2006-07 and thereafter and part-time students admitted in 2008-09 and thereafter)

The “candidacy requirement” comprises of three major parts, namely, coursework requirement, candidacy examination, and thesis proposal (and oral defence). Students must complete and fulfill all three parts within the “maximum period for fulfilling candidacy requirements”. Details of the requirement are listed below:

1. Coursework Requirement

(a) Lecture courses:
Each Ph.D. student is required to complete a minimum of 12 units of postgraduate courses offered by the Division or related courses as approved by the Division.

(b) Thesis research / monitoring courses:
Each Ph.D. student must register for the relevant Thesis Research Course in every term throughout his/her study period.
(i) Full-time Ph.D. (pre-candidacy) student: CSCI8006
(ii) Part-time Ph.D. (pre-candidacy) student: CSCI8003

(c) Other courses:
Each Ph.D. student is required to take CSCI7600 ‘Seminar for Ph.D. Studies’ in every term throughout his/her normative study period.

2. Candidacy Examination

(a) Each Ph.D. student is required to pass the Candidacy Examination within the maximum period of his/her pre-candidacy stage for the advancement to his/her post-candidacy stage.

(b) Obtain grade B- or above in two additional courses taken from any two of the following areas:
• Algorithms & Computational Complexity
• Artificial Intelligence
• Database
• Digital Circuits & VLSI Design
• Networks
• Programming Languages
• Software Engineering
• Microprocessors & Systems

(c) No exemptions will be allowed.

3. Thesis Proposal and Oral Defence

Each Ph.D. student is required to submit a written thesis proposal and pass an oral defence.

4. Remarks

(a) For the advancement to post-candidacy stage, each Ph.D. student is required to pass:
(i) at least 12 units of graduate courses, and
(ii) the candidacy examination
(iii) a thesis proposal followed by an oral presentation

(b) A student is required to discontinue from study if he/she cannot fulfill the candidacy requirement within the maximum period.

5. Other Requirement

Student may be required by the Division to complete other courses, such as ELTU5501 Postgraduate Presentation Skills or its equivalent, if deemed necessary.

C. Ph.D. Student (Post-candidacy)

1. Coursework Requirement

(a) Lecture courses:
There is no additional course requirement for Ph.D. candidate.

(b) Thesis research / monitoring courses:
Each Ph.D. student must register for the relevant Thesis Research Course in every term throughout his/her study period.
(i) Full-time Ph.D. (post-candidacy) student: CSCI8012
(ii) Part-time Ph.D. (post-candidacy) student: CSCI8006
(iii) Continuing Ph.D. (post-candidacy) student: CSCI8003

(c) Other courses:
Each Ph.D. student is required to take CSCI7600 Seminar for Ph.D. Studies in every term throughout his/her normative study period.

2. Other Requirements

(a) Students must fulfill the Term Assessment Requirement. A student who obtains a cumulative grade point average (GPA) below 2.0 in the preceding term or receives a failure grade in thesis monitoring courses (for Research Postgraduate Programmes) will be put on academic probation. For details, please refer to Clause 14.0 “Unsatisfactory Performance and Discontinuation of Studies” of the General Regulations Governing Postgraduate Studies which can be accessed from the Graduate School Homepage: http://www.cuhk.edu.hk/gss.

(b) Students may be required to take any courses if deemed necessary.

(c) If the Division deems necessary, students who fail CSCI8xxx may be required to take course(s) or submit project report(s).

(d) Each Ph.D. student is required to submit a research paper and give a presentation before the end of each year of attendance, exact dates to be determined by the Division. A student with failure grade may be required to discontinue his/her study.

(e) Unless otherwise specified, a minimum grade of "C-" is required in each of the courses taken.

(f) Students are required to submit a research thesis and pass an oral examination for graduation.

(g) IT Proficiency Test. (Applicable to students admitted in 2011-12 and before. Please refer to “Student IT Competence”)

(h) Complete an Improving Postgraduate Learning (IPL) module on “Observing Intellectual Property and Copyright Law during Research”. This will be an online module and relevant information can be accessed from the website: http://www.cuhk.edu.hk/clear/ipl/29.htm.

II. Ph.D. Programme in Computer Science and Engineering (Part-time)
(Applicable to part-time students admitted in 2007-08 and before)

1. Coursework Requirement

Thesis research/monitoring courses
Students are required to take CSCI8003 “Thesis Research” in every term throughout their normative study period.

2. Qualifying Examination
Students are required to take and pass a qualifying examination which is in oral format. Students should contact the Division for details of the examination.

3. Other Requirements

(a) Students must fulfill the Term Assessment Requirement. A student who obtains a cumulative grade point average (GPA) below 2.0 in the preceding term or receives a failure grade in thesis monitoring courses (for Research Postgraduate Programmes) will be put on academic probation. For details, please refer to Clause 14.0 “Unsatisfactory Performance and Discontinuation of Studies” of the General Regulations Governing Postgraduate Studies which can be accessed from the Graduate School Homepage: http://www.cuhk.edu.hk/gss.

(b) Students may be required to take any courses if deemed necessary.

(c) If the Division deems necessary, students who fail CSCI8003 may be required to take course(s) or submit project report(s).

(d) Submit a research paper and give a presentation before the end of each year of attendance, exact dates to be determined by the Division. A student with failure grade may be required to discontinue his/her study.

(e) Unless otherwise specified, a minimum grade of "C−" is required in each of the courses taken.

(f) Students are required to submit a research thesis and pass an oral examination for graduation.

(g) IT Proficiency Test (Applicable to students admitted in 2011-12 and before. Please refer to “Student IT Competence”)

(h) Complete an Improving Postgraduate Learning (IPL) module on “Observing Intellectual Property and Copyright Law during Research”. This will be an online module and relevant information can be accessed from the website: http://www.cuhk.edu.hk/clear/ipl/29.htm.

### Course List

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<th>Course Title</th>
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<td>CENG5020</td>
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<td>CENG5050</td>
<td>Hardware for Human Machine Interface</td>
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<td>CENG5120</td>
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<td>CENG5270</td>
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<td>EDA for Logic Design of Digital Systems</td>
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<td>Advanced Topics on Social Computing</td>
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<td>Advanced System Security</td>
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<td>CSCI5110</td>
<td>Advanced Topics in Software Engineering</td>
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<td>CSCI5120</td>
<td>Advanced Topics in Database Systems</td>
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<td>CSCI5130</td>
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<td>CSCI5180</td>
<td>Techniques for Data Mining</td>
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<td>CSCI5210</td>
<td>Advanced Topics in Computer Graphics and Visualization</td>
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<td>CSCI5220</td>
<td>Advanced Topics in Multimedia Database</td>
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<td>CSCI5230</td>
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<td>CSCI5240</td>
<td>Combinatorial Search and Optimization with Constraints</td>
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<td>CSCI5280</td>
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### Study Scheme

#### Learning Outcomes

1. Our research programmes aim to educate researchers to embark on careers that would allow them to become world leaders in their fields, working as university professors, principal investigators in research institutes, senior managers in enterprises, or experts in other professions related to the pursuit and application of knowledge.

2. The University expects **doctoral degree graduates** of research programmes to have acquired in-depth knowledge in a number of major areas of an academic discipline while maintaining a broad understanding of other related fields. Doctoral degree graduates should have accumulated enough educational experience and background learning to be capable of performing independent research to advance scholarship, with global standards. In particular, doctoral graduates should have the ability to identify research trends and opportunities, venture into new research areas when appropriate, define long-term research objectives, formulate original research problems, and originate and develop solution methodologies. Doctoral graduates should be capable of producing research output at a level that can either lead to publications in high-ranking scholastic venues, or to novel applications in relevant industrial, commercial, or other public sectors, or to other forms of useful knowledge transfer to society. They should have gained proficiency in techniques of knowledge dissemination through presentation and writing and some teaching experiences through student tutoring.

3. The University expects **master's degree graduates** of research programmes to have acquired advanced knowledge in major areas of an academic discipline while maintaining a broad understanding of other related fields. Master's degree graduates should have gained enough background knowledge to enable them to perform research with minimal supervision. In particular, they should have the ability to formulate individual research tasks and to develop solution methodologies under minimal supervision. Master's degree graduates should be capable of producing original, innovative research output, some of which may lead to publication in well-respected scholastic venues. They should have gained proficiency in techniques of knowledge dissemination through presentation and writing.

4. For graduates of research programmes at both doctoral and master's level, communication and language skills at a level appropriate to university graduates are expected already at the time of admission. In particular, fluent communication skills are expected in the language(s)
essential to their research areas. In general, a high level of proficiency in English is expected as it is commonly regarded as the default international research language. Ability in a second language is encouraged.