UNIVERSITY FACULTY SENATE FORMS
GRD0279
Academic Program Approval

This form is a routing document for the approval of new and revised academic programs.
Proposing department should complete this form. For more information, call the Faculty Senate
Office at 831-2921.

Submitted by: ___Li Liao_____phone number__302-831-3500__

Department: ___Computer and Information Sciences_____email address__liliao@udel.edu_

Date: _____9 November 2012_____

Action: revise graduate program
_____
(Example: add major/minor/concentration, delete major/minor/concentration, revise
major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

**Effective
term**_____13F_____
(use format 04F, 05W)

**Current
degree**_____CIS_____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: _____PhD, _____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name:_____
Proposed new name for revised or new major / minor / concentration / academic unit
(if applicable)

Revising or Deleting:

    Undergraduate major / Concentration:_____
        (Example: Applied Music – Instrumental degree BMAS)

    Undergraduate minor:_____
        (Example: African Studies, Business Administration, English, Leadership, etc.)

    Graduate Program Policy statement change:_____
        (**Must attach** your Graduate Program Policy Statement)

    Graduate Program of Study:_____
        (Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

    Graduate minor / concentration:_____

**Note: all graduate studies proposals must include an electronic copy of the Graduate
Program Policy Document, highlighting the changes made to the original policy document.**

List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?
(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")

None.

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: http://www.ugs.udel.edu/gened/

Identify other units affected by the proposed changes:
(Attach permission from the affected units. If no other unit is affected, enter "None")

None.

Describe the rationale for the proposed program change(s):
(Explain your reasons for creating, revising, or deleting the curriculum or program.)

This revision consists of two components: 1) revision of the PhD Degree Requirements regarding Research Ability and Preliminary Examination, and 2) revision of Admission Requirements regarding GRE scores and TOEFL/IELTS scores. The rationale for these changes is given as follows.

1)   For the PhD requirements, the main change is with respect to the Preliminary Examination. In the current catalog, the preliminary examination only tests the students' breadth of knowledge in computer sciences, by written exams on 6 subjects selected from the 3 areas of 9 breadth courses. The new requirements consist of two parts: breadth and research. The breadth requirement is now satisfied by 5 breadth courses selected from the 4 areas specified above, with an average GPA 3.5 and B- or better grade in each individual course. This change from written exams to courses streamlines the procedure -- as our incomplete statistics show that students having GPA 3.5 on the selected breadth courses are more likely to pass the written exams in the same subject areas, making the written exams somewhat redundant. More importantly, this will allow the student more time to start research training earlier. The research requirement is project based. The student is required to carry out a research project, supervised by a two faculty member committee, write a final report, and give an oral presentation. Adding this research component to the Preliminary Requirements formalizes and standardizes the Research Ability requirement, which in the current catalog is based on a variety of options including independent study, working as a Research Assistant, or writing a MS thesis. The new requirement will help ensure that the student acquires and demonstrates competence to continue the PhD research. Details of administering the Preliminary Requirements are specified in the Policy Statement maintained and posted by the Graduate Office and the CIS department.

2)   The new GRE requirements correspond to about 60% rank which is our department's expectation of incoming students. We accept IELTS scores in place of TOEFL to be consistent with the university graduate office's policy.

Note that only the affected sections in the catalog are listed below in their original headings and numberings as appeared in the current catalog.

Program Requirements:
(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.)

Requirements for PhD Degree

NEW:

2. **Research Ability**. PhD candidates are strongly encouraged to get involved in research as early as possible in their program. As part of the process of finding an adviser, and as early as possible, candidates must demonstrate the potential to perform research, as formalized in the Preliminary Requirements.
3. **Preliminary Requirements**. These requirements ensure that each PhD candidate (1) has significant breadth of knowledge in core areas of computer science, and (2) has demonstrated the ability to perform research in a specific computer science area. The breadth requirement is met by taking 5 breadth courses, which may include the 4 breadth courses from the breadth requirement of the MS degree, and obtaining a minimum 3.5 GPA with at least a B- grade for each of the 5 breadth courses. The research requirement is met by working with a committee of 2 CIS faculty members on a research project, culminating in a written report and presentation/oral exam. A pass or fail decision for the research requirement will be made by the committee. If failed, the candidate is allowed to retake the exam one more time. Candidates must fulfill the Preliminary Requirements within 2 years, counted from the date the student enters the graduate program. Candidates may request an extension in exceptional circumstances (such as serious illness or injury) subject to approval by the Faculty. The student will be dismissed from the Ph.D. program if the Preliminary Requirements are not satisfied within the allowed time period. Full details on the process for fulfilling the Preliminary Requirements may be found on the CIS departmental web site.

OLD:

2. Research Ability. PhD candidates are strongly encouraged to get involved in research as early as possible in their program. As part of the process of finding an adviser, and as early as possible, candidates must demonstrate the potential to perform research. Demonstration may be in the form of independent study (CISC 666, CISC 866), research (CISC 868), working as a research assistant, or writing an MS thesis.

3. Preliminary Examination. Each candidate must pass a preliminary examination that tests a person's breadth of knowledge of computer science. This exam, normally offered annually in January, is based on subject matter usually included in a CIS undergraduate major and in one year of full-time graduate study including the core areas of the MS program. The detailed composition of the preliminary exam, within the constraint of testing breadth of CIS knowledge, is based upon a reading list of textbooks determined by the Graduate Committee with faculty approval. Candidates are encouraged to take the preliminary exam as early as possible. Students entering with a Bachelor's degree should normally take the preliminary exam by the end of their third semester; and those with a Master's degree should normally take it by the end of their first semester. The preliminary exam may be taken at most two times.

Admission Requirements:

New

4. Minimum scores of 153, 155, 4.0 (if taken prior to 08/01/11 then 500, 700 and 4.0) on the verbal, quantitative, and analytical writing sections, respectively, of the Graduate Record

Examination Aptitude Test. The GRE subject test is not required.

6. For applicants whose first language is not English, and who have not received a degree at a U.S. college or university, a minimum score of 79 on the TOEFL (Test of English as a Foreign Language) or 6.5 on the IELTS (International English Language Testing System) is required for admission. A minimum score of 100 on the TOEFL or 7.5 on the IELTS is required to be considered for financial aid in the form of a teaching assistantship.

Old

4. Minimum scores of 550, 650 and 4.0 on the verbal, quantitative, and analytical writing sections, respectively, of the Graduate Record Examination Aptitude Test. The GRE subject test is not required.

6. For applicants whose first language is not English, and who have not received a degree at a U.S. college or university, a TOEFL score of 79 or better on the Internet test, or 213 or better on the computer test, or 550 or better on the old paper test, is required by the University for admission without financial aid. For applicants who seek a teaching assistantship appointment, a TOEFL score of 100 or better on the Internet test, or 250 or better on the computer test, or 600 or better on the old paper test is required. In addition, for applicants who have not graduated from an institution whose principal language of instruction is English, the Test of Spoken English is highly recommended.

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson _____Date_____

Dean of College_____Date_____

Chairperson, College Curriculum Committee_____Date_____

Chairperson, Senate Com. on UG or GR Studies_____Date_____

Chairperson, Senate Coordinating Com._____Date_____

Secretary, Faculty Senate_____Date_____

Date of Senate Resolution_____Date to be Effective_____

Registrar _____Program Code_____Date_____

Vice Provost for Academic Affairs & International Programs_____Date_____

Provost _____Date_____

Board of Trustee Notification _____Date_____

Revised 02/09/2009   /khs