Rules and Procedures Governing the PhD Program in the CIS Department at IUPUI

Approved by the faculty on 9/2/2016

Approved by School of Science Graduate Affairs Committee on 9/23/2016

Admission
- BS degree in CS or in a related field.
- Background knowledge requirements (core CS topics, Data Structures, Math, etc.). If applicants have deficiencies, we recommend they enroll in Data Structures, Computer Architecture, Operating Systems as needed with guidance from faculty.
- GRE
- GPA (>= 3.0)
- We encourage outstanding candidates from other disciplines to apply.

Research Orientation Requirement
Students in their first year must take a 1 credit Pass/Fail seminar course (CSCI C59100) and as part of this course they must also complete the "Physical Science Responsible Conduct of Research" course online (http://researchcompliance.iu.edu/eo/eo_citi.html) and provide the certificate of completion.

Core course requirement
Students must satisfy this requirement by the end of their fourth semester by passing one theory core course and one systems core course and one course in an area of specialization with grades of at least A- (A minus) in each of these courses. A core course that does not meet the grade and GPA requirements can be taken at most a second time. Taking another course (in the same core area or in the same specialization area, or taking a course in another specialization area) would count as the second attempt. The second attempt at satisfying the core course qualifications will be considered a probationary period for the student to remedy the shortcoming. Students must declare the area of specialization ahead of time with the approval of their advisor. The students who have not satisfied their core course requirements by the end of their fourth semester according to the conditions described above cannot proceed further in their PhD studies. They will need to contact their advisor.

The core courses and areas of specialization are defined as follows:

- Theory core courses: CSCI 580 (Algorithms) and CSCI 565 (Programming Languages)
- Systems core courses: CSCI 503 (OS), CSCI 504 (Computer Architecture)
- Area Specialization courses:
  - Visualization, Image Processing and Machine Vision: CSCI 550, CSCI 552, CSCI 557, 590 (Multimedia)
  - Data Communication and Networking: CSCI 536, 590 (Wireless Sensor Networks)
  - Distributed Computing: CSCI 537 (Distr. Systems), 590 (Cloud Computing)
  - AI, Machine learning and Data Analysis: CSCI 549, CSCI 573, 590 (ML)
  - Databases: CSCI 541
  - Software Engineering: CSCI 506, CSCI 507, 590 (Software Testing)
  - Security: CSCI 555, 590 (Trustworthy Computing)

Students who are admitted into the program with deficiencies in CS background (because their degrees are in another discipline) must prove that the deficiencies are eliminated by the end of their qualifying

process. The areas (as described in the admissions requirement) are Data Structures, Computer Architecture, and Operating Systems.

Plan of Study (same as PUWL)

- Advisory committee: Advisor + 2 or more other faculty. The students must form their advisory committee by the end of their first year.
- Overall course requirement: at least nine graduate level courses (including the two core and one specialization course) with GPA >= 3.5. Other courses need to be 500 or 600 level courses.
    - o A student receiving a grade lower than B- in a course on the plan of study will have to repeat or replace the course. If a course is repeated, only the most recent grade, even if lower, is used to compute all the GPAs that this course grade is used to compute.
- Policy for transferring courses from MS degree:
    - o The MS courses taken in the department as part of the MS degree within the department count towards Ph.D. course requirement.
    - o For students with graduate courses from another institution, the faculty will consider approving the transfer of up to 30 credits of graduate level courses from other institutions upon petition by the student. The faculty will require a copy of the syllabus for each course considered for transfer and decisions will be made on a case by case basis. Final approval of the course transfers will be made by the IUPUI Graduate Office. The courses on the plan of study cannot have been used to satisfy requirements for an undergraduate degree nor can they cause the student's doctoral plan of study to include courses from more than one master's program.

Preliminary exam (same as PUWL)

- Students must pass a preliminary examination that tests competence in the student's research area and readiness for research on a specific problem. The content of the examination is at the discretion of the examining committee. Typically, the examination includes a proposal of thesis research, the student's preliminary research results, an oral presentation by the student on his/her thesis proposal, and any other relevant material if requested by the examining committee. The form and content of the examination will be determined by the examination committee and will be communicated to the student by the committee chair, which normally is the student's advisor.
- The examining committee consists of the student's advisory committee, and of an additional member, who is not on the advisory committee, who is determined by the Graduate Committee Chair.
- The examination must be taken at least two semesters before the final examination of the thesis. It is advised, however, that the student take the preliminary exam by the end of the third semester following the one in which the student completes the qualifying process.

Thesis and Final exam/Defense (same as PUWL)

- The thesis must present new results worthy of publication.
- The student must defend the thesis publicly and to the satisfaction of the Examining Committee.
- The Examining Committee consists of the Advisory Committee and one additional faculty member representing an area outside that of the thesis assigned by the Graduate Committee Chair.
- The students can only defend their thesis after at least two semesters following the completion of the preliminary exam. The thesis defense should be completed by the end of the fourth

semester following the one in which the student passes the preliminary examination. The Graduate Committee may grant extensions.

Annual Reviews
Each doctoral student's academic and research progress is evaluated annually by their advisory committee. Students receive written feedback and guidance to support their progress.

Changes in Requirements
The Ph.D. requirements described above apply to all students entering or re-entering the Department of Computer and Information Science at IUPUI ("the Department") as degree-seeking graduate students in the Spring Session of 2017 or later. The existing students are subject to the requirements in effect when they entered the Department as degree-seeking students. Here is an archive of the requirements of the Department of Computer Science at West Lafayette, to which existing graduate students are subject, unless they opt to switch to the Indianapolis program: the 2016 (current requirements), 2013, 2010, 2009, 2006, 2002 and 2001 Doctoral Program Requirements.

Students are governed by the degree requirements in effect when they enter the Department as degree-seeking students. For students re-entering, the date of the most recent re-entry determines the degree requirements. Students who wish to take advantage of subsequent requirements may apply to the Graduate Committee to be governed by all degree requirements in effect at a specified subsequent time. Choosing features from different sets of requirements is not permitted.

Students who are currently at various stages of the WL program and decide to switch to the Indianapolis program are encouraged to talk to the graduate advisor about their case. If they decide to switch to the Indianapolis PhD requirements, the Graduate Committee will review them on a case by case basis and decide how their particular case of transition to the local requirements will be made.