

Duke University

DEPARTMENT OF COMPUTER SCIENCE
LEVINE SCIENCE RESEARCH CENTER
DURHAM, NORTH CAROLINA 27708-0129

TELEPHONE (919) 660-6514
FACSIMILE (919) 660-6519
WWW.CS.DUKE.EDU/~AMINK

18 November 2013

Provost Peter Lange, Ph.D.
Thomas A. Langford University Professor
Duke University
220 Allen Building
Box 90005
Durham, NC 27708-0005

Dear Provost Lange:

At its meeting of 13 November 2013, the Academic Programs Committee considered a proposal from the Departments of Economics and Computer Science to create a new joint MS in Economics and Computation. APC had a chance to discuss the proposal with the chair of CS, Carlo Tomasi, and the associate chair of Economics, Charlie Becker.

The intersection of the disciplines of economics and computer science is rich and variegated. Modern economists require computational approaches to simulate complex systems of interacting economic agents or predict empirical outcomes of policy changes. More theoretically, considering how equilibrium solutions of certain games might be computed has led to advances in both algorithm and mechanism design. On the systems end of computer science, better mechanisms for efficiently allocating scarce resources (e.g., hardware or power in devices, bandwidth in a network)—whether in centralized, distributed, or strategic settings—can be developed by considering economic principles. APC was convinced by the proposal and discussion that this is indeed a rich intellectual nexus, that a strong market exists for individuals with training at this nexus, and that Duke stands to benefit by being at the vanguard of this area. APC recommends that the program be implemented in a manner that allows a community of students in the program (and in the research area from other programs, such as the Ph.D. programs in CS and Economics) to develop within this intellectual nexus. Specifically, although the program is understandably trying to maintain flexibility in its curricular requirements as it launches, attention should be paid to co-curricular ideas that can build intellectual community and cohort identity. Examples of such shared experiences might include required attendance at the existing CS-Econ weekly seminar, a journal club or reading/discussion group, opportunities for students to go to lunch or dinner with outside speakers, and so forth.

As with each of the new programs APC has been considering this academic year, APC recommends an appropriate review of the proposed program be undertaken after three years.

APC voted after its meeting in favor of the proposal (9 yes, 0 no, 6 abstaining, and 1 vote not received).

Respectfully submitted,



Alexander J. Hartemink

Alexander F. Hehmeyer Professor of Computer Science, Statistical Science, and Biology
Chair of the Provost's Academic Programs Committee
Director of the Graduate Program in Computational Biology and Bioinformatics
amink@cs.duke.edu