Response to the Task Force Assessment on the AMCS Program

We appreciate the time and effort the Task Force Committee spent on assessments of graduate programs. Thanks for pointing out the seemingly long median TTD and the slightly higher than average percentage of completion; we have noticed these two issues and will work particularly hard to address them.

Unfortunately, the assessment on the AMCS Program ignores the strengths and achievements of the Program, and some statements and conclusion are thus misleading.

The AMCS Program has been very successful in training students and has a 100% placement rate. For the time period 2003–08, the Program graduated 23 Ph.D.s, 20 of them took academic positions (13 tenure-tracks at such institutions as Georgia Southern, Iowa, Savannah State, University of Wisconsin–Oshkosh, 4 postdocs at Cambridge, Tulane, University of Minnesota, and University of Texas at Austin), 1 in Los Alamos National Laboratory, and 2 in industry.

The AMCS Program is a highly regarded interdisciplinary program nationwide. According to the latest Top Research Universities Faculty Scholarly Productivity Index that compiles overall institutional rankings on 375 universities that offer the Ph.D. degree, the ranking of Applied Mathematics for the AMCS Program is No. 5 (behind Cornell, Michigan, Texas–Austin, and Washington), and the ranking of the Computational Sciences for the AMCS Program is No. 8 (behind CalTech, Princeton, Stanford, etc.). For detail, see http://chronicle.com/stats/productivity/

As an interdisciplinary program, the AMCS Program has been very successful in serving many disciplines with needs in mathematics. Many of our students conducted thesis research in applied areas in physical, engineering and social sciences. Due to the space limitation, here we just mention two examples. Sean Forman’s thesis was on applications in Management Sciences; in the Graduate College fall newsletter of 2009, there was an article about Sean and his extremely popular Baseball-Reference.com. Adrian Sandu worked on air quality modeling and computation in Chemical and Biochemical Engineering, and he is now a Computer Science Professor at Virginia Tech. The AMCS Program also serves as a platform to exchange ideas and to develop interdisciplinary collaborations. There are many successful examples of such collaborations through the AMCS Program, e.g., the joint NIH project between Mike Mackey of Biomedical Engineering and Yi Li of Mathematics, joint works between Math Biology group and researchers in Biological Sciences, Biomedical Engineering, and so on.

The AMCS Program has been very successful in diversity. During the time period 2003–08, the Program’s under-represented minority Ph.D. graduates, their graduation year, and their placement information are: Omayra Ortega, 2008, Tenure-track, Arizona State University–west campus; Ricardo Ortiz-Rosado, 2007, Postdoc, Tulane University; Jose Candelaria, 2005, Visiting Assistant Professor, Cornell College; Sara Del Valle, 2005, Technical Staff Member, Los Alamos National Laboratory. The Program has graduated many successful female students as well. Since the Task Force Assessment did not mention female students, we skip the relevant information here to save the space. Currently, the percentage of female students is 39.5%, a percentage much higher than the national average, and that of under-represented minority students is 13%. In the recent years, competition from other top universities for high quality under-represented minority students has become ever more fierce, and this is responsible for the temporary decline of the percentage of under-represented minority students in the Program. However, we are working hard to bring up this percentage.

The AMCS Program and the Mathematics Department have worked together to earn national recognition of diversity efforts for Iowa. The former AMCS Program Director, Professor Hethcote, was recognized for his contributions to the education, training and mentoring of underrepresented minorities in the mathematical and statistical sciences in David Blackwell and Richard Tapia Distinguished Lecture Series in the Mathematical and Statistical Sciences a few years ago. Past and current AMCS Program Directors are active members in the Math Minority Student Committee. As stated in the joint strategic plan of the Math Dept and AMCS Program, the two units have jointly received grants and awards recognizing the achievements in diversity, such as the NSF VIGRE Grant and the GAANN Grants.

It is not wise to relocate the AMCS Program to CLAS. The AMCS Program is a pure Ph.D. program, and it is natural to have the program within the Graduate College. Moreover, the AMCS Program is a campus wide interdisciplinary program. Its affiliated faculty come from many departments in several different colleges. Relocating the Program to CLAS will be very harmful for the continuing success of the Program. The AMCS Program is grateful to the Graduate College for its constant support. It is in the interest of the entire university, and the Graduate College in particular, to continue supporting the successful interdisciplinary AMCS Program.