

## Experiences and challenges in offering a graduate program in Applied Computer Science

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Our department began offering a Master of Science program in Applied Computer Science in the Spring of 2002. From its inception, the program has been targeted toward the goals of “re-tooling” and re-training students with skills needed to seek advanced professional positions in the IT workforce, and with a sufficiently solid educational background in CS to be able to effectively adapt to the rapidly shifting trends of the IT industry. Offering and evolving such a program has been both a challenging and ambitious effort.

As a program that requires no undergraduate background in computer science, we have experienced a wide variety of students in the program with varied backgrounds and experiences. Some students begin the program immediately after completing their undergraduate degrees, while others have been in the workforce for several years (both in IT fields and otherwise). Such a diverse group of students requires faculty to consider traditional topics such as operating systems, networks, and software engineering from very different perspectives so that both students lacking “traditional” backgrounds as well as those with a CS background gain relevant and valuable experience from their classes.

Responding and adapting to rapidly shifting trends in the IT industry is creating its own set of challenges. Change is difficult. The need for the program as well as the faculty to be sensitive to the dynamics of the industry is essential to giving our students an educational experience that allows them to adapt and succeed in that industry. Moreover, with the recent issues in globalization and outsourcing/offshoring IT, the program must not only balance skills, training, and an educational background to support future adaptation, but also continuously change to incorporate higher-level skills that are more and more frequently being demanded from U.S. IT professionals.

### Related References:

1. UWG Department of Computer Science. M.S. in Applied CS.  
<http://www.cs.westga.edu/Graduate/HomePage>