Teaching Teamwork in Engineering and Computer Science

Teamwork is recognized as an important skill for engineering and computer science students. Engineering is by nature a collaborative process, and most production systems are designed by teams working over long periods of time. Unfortunately most engineering and computer science programs fail to address teamwork as something that needs to be taught. It is usually expected that students learn teamwork skills on their own through participation in various team projects. Little thought or effort is given as to how to improve the way teaching is done in order to improve students’ ability to function on teams. Furthermore, the actual skills that students are expected to learn are usually not well articulated, or even understood. One of the main problems is that engineering and computer science instructors themselves have often had little or no experience operating in teams nor have they been trained in effective ways to teach teamwork.

We have tried to address this issue by forming an informal group of interested faculty within the College of Engineering and Computer Science to meet regularly and share ideas and techniques for teaching teamwork. This forum provides a way for faculty seeking better approaches to improve student learning with respect to teamwork to hear the successful approaches used by other members in the College and for faculty to discuss new ideas to improve learning. The result has been increased interest by faculty in improved teamwork instruction, improved learning experiences for students, and the development of new and creative approaches with respect to the teaching of teamwork. This paper details the approach taken to increase faculty involvement and outlines best ideas teaching ideas that have resulted since this process began.