The College of Arts and Sciences (CAS) at George Mason University has launched a program - Technology Across the Curriculum (TAC) - to promote student use of information technology. The TAC initiative supports faculty to develop technology-enhanced course assignments with funding provided by the Vice-President for Information Technology. Through their work to promote these innovations, faculty have opportunities to take a deeper look at their teaching and scholarship. Students who enroll in TAC courses are not only empowered with advanced tools for problem solving, they also acquire a conceptual understanding of “applied” technology so that the utility of these tools can be transferred to different domains over time.

The TAC program has identified three basic types of technology competencies that would have practical value in the classroom as well as the workplace: information management, electronic collaboration, digital authoring. Each is supported by a subset of specific tools and activities that will be an integral part of course assignments and the learning outcomes intended for TAC courses.

1. Information Management
   Students will collect, organize, evaluate, and analyze different types of data. They will conduct research using web-based directories and search engines or on-line library catalogs. They will evaluate digital archives using sources and citations. They will use databases to create relational data structures that are the basis for queries and reports. They will use spreadsheets for data entry, plotting and graphing charts, and for descriptive statistics. They will use geographical information systems (GIS) for spatial analysis for descriptive statistics, economic geography, and environmental data.

2. Electronic Collaboration
   Students will engage in online collaboration for learning and to produce knowledge. They will communicate using, e-mail, listserves, and asynchronous conferences. The will exchange documents and other materials using e-mail attachments, FTP, and netware. They will collaborate on group projects and organize workflow using online tools that permit conferencing and the posting of documents.

3. Digital Authoring
   Students will be able to present information in an engaging, effective manner using digital authoring tools. They will design, develop and maintain websites using an HTML editor. They will learn visual principles of
communication (effective color and graphics, text treatment, and audience targeting) using PowerPoint to create a technology-enhanced presentations.