

# Instructional Technology Program

The **Instructional Technology (IT)** Program leverages the theory-based design of learning opportunities that maximize the teaching and learning process through a range of technology applications and design experiences. Development efforts span a range of audiences, meeting diverse needs – school-aged learners, adult learners, and learners with disabilities in public and private settings. Within this framework, the program emphasizes project-based design and development, research, reflection, collaboration, leadership, and implementation using a broad spectrum of current technologies. Master’s degrees and graduate certificates can be earned in each of the following three program tracks.

- Instructional Design and Development (IDD) - Track One (Master’s Degree - Part-time and Full-Time (Immersion) - 30 credits, Graduate Certificate - 15 credits)
- Integration of Technology in Schools (ITS) - Track Two (Master’s Degree - 36 credits, Graduate Certificate - 12 credits)
- Assistive/Special Education Technology (A/SET) - Track Three (Master’s Degree - 30 credits, Graduate Certificate - 15 credits)

For more information about the Instructional Technology Program visit <http://it.gse.gmu.edu/>

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## Announcements

### Update your e-Learning development skills with a graduate level certificate in e-Learning!

The Instructional Technology Program now offers a graduate e-Learning certificate. Students may earn the 15 credit graduate certificate as part of the Instructional Design & Development (IDD) track. The certificate provides professionals with the specialized knowledge and skills needed to apply today’s Internet and Web-based technologies to educational and training goals within school, community, and corporate settings. Exciting courses in **Instructional Design (3), Distance Learning(3), and Web Design & Accessibility (3)** are required for the certificate. Students then select six credits of electives. Elective options include **Flash, Fireworks, Dreamweaver, Captivate, Lectora, Photoshop, Premier, Authorware, JavaScript, Podcasting** and **SCORM**. Courses are delivered in online, face-to-face, and blended formats that model e-Learning delivery models. In addition, 13 of the 15 credits can be applied to the 30 credit IDD Instructional Technology Master’s Degree Program.



### Intersession Courses offered January 8-21, 2007

The Instructional Technology Program will offer courses in **Lectora, Captivate** and **Podcasting** during the intersession, January 8-21, 2007. **Lectora** is a digital authoring and publishing technology that enables the rapid creation and distribution of engaging, multimedia educational content, conforms to produce SCORM and can be integrated into almost any Learning Management System. (continued)

## Announcements *(continued)*

**Captivate** automatically records all onscreen actions and instantly creates an interactive Flash simulation. **Podcasting** offers a unique and effective way to syndicate messages through audio and video to a broad audience allowing information to be viewed through MP3 players.

**Captivate** (1 credit)  
Monday, Wednesday, & Friday  
6:00-10:00 pm. 1/8-1/12

**Lectora** (1 credit)  
Monday, Wednesday, & Friday  
6:00-10:00 pm. 1/15-1/19

**Postcasting** (2 credits)  
Tuesdays & Thursdays 6:00-10:00 pm  
Saturdays 10:00 am - 2:00 pm  
1/9-1/21

## Projects/Award Winning Partnerships

### **Hoop Magic - Track One (Immersion)**

The goal of this component of the Hoop Magic Sports Academy (HMSA) Education Technology Center, George Mason University, and Northrop Grumman partnership is to increase the number of students who are motivated to participate in science, technology, engineering, and mathematics (STEM) related fields by positively impacting academic success through the use of technology and gaming tools. The goal of this project will be to have graduate students and faculty from George Mason University's Instructional Technology program design and develop sports-themed educational games, and to provide K-12 students training and support while they participate in structured HMSA education programs.

The project goal will be achieved by conducting extensive research in four areas: STEM achievement, gaming, after-school/informal learning implementation models, and educational technology resources. This research will be used to identify content areas that present the most challenge to students, and to identify effective instructional strategies. For this phase of the project, gaming is the tool that will be used to motivate students and provide them with effective academics skills and strategies. A detailed analysis of exemplary after-school and informal learning programs will be conducted to select or construct an implementation model that can be used to meet the needs of students, parents, tutors, and mentors. Additional resources and toolkits will be identified to support the gaming activities as well as the entire program implementation. The resources may include but are not limited to: online tutorials, parental involvement materials, access to content experts, software evaluation tools, and educational software.



### **Miner's Safety and Health Administration (MSHA) - Track One (Immersion)**

The goal of the **Miner's Safety and Health Administration** project is to design and develop systematic and effective online training for mine supervisors, utilizing Job Task Analyses provided by the MSHA in cooperation with the U.S. Navy, and supported by state-of-the-art instructional design principles, processes, and learning technologies.

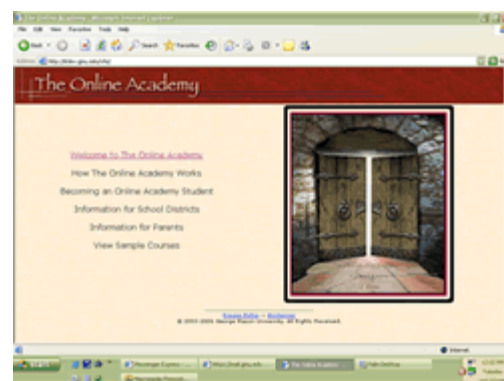


**We went 750 feet underground!** On October 7, Dr. Dabbagh and her 2006-2007 immersion team visited an underground coal mine in Cumberland, Pennsylvania. The team, Joe Breighner, Abigail Jones, Rashmi Jain, Tangie Gray, and Allison Czapracki, has been working on the Mine Safety and Health Administration (MSHA) supervisory training project since August and facing numerous Instructional Design challenges including learning coal mining terminology such as "continuous miner", "long wall", "mantrip", "cross cuts", "#5 entry", "SCSR", "section tail piece", and "roof and rib control". Well, the team and Dr. Dabbagh witnessed the mining environment first hand. They spent 5 hours underground on a guided tour. They learned how to use the SCSR (self contained self rescue apparatus), rode a mantrip through section cross cuts and entryways, observed a 1250 foot long wall mining operation and a continuous miner operation, stood under a 750 foot mine shaft where a rescue capsule can be dropped, observed a roof bolter and a scoop, and interviewed several mining personnel. It was as real as it gets! Way to go immersion!

## Projects/Award Winning Partnerships *(continued)*

### **Virtual High School Collaborative - Track Two**

The Virtual High School Collaborative is a partnership of the Graduate School of Education at George Mason University and three Virginia school divisions – Frederick County Public Schools, Loudoun County Public Schools, and Stafford County Public Schools. Members of the Collaborative are designing and developing web-based online high school courses. Designed to provide an online learning option for high school students, the Collaborative has created online modules in **Algebra I, Algebra II, Geometry, Trigonometry, Math Analysis, World History I, World History II, US Government, US History, English 9, English 11, English 12, Earth Science, Biology and Physics.**



Combining resources, knowledge, and expertise, these school divisions and George Mason University continue to develop virtual high school courses that reflect robust opportunities for students and meet Virginia's Standards of Learning through innovative online options. Contact Dr. Priscilla Norton at [pnorton@gmu.edu](mailto:pnorton@gmu.edu) for more information.

★ **The Virtual High School received the 2006 Governor's Technology Innovation Award in the category of K-12 Education Innovation Technology. For the full story go to <http://w.covits.org/.awards.html>.**

### **The Kellar Instructional Handheld data System (KIHD system) - Track Three**

Kellar Institute faculty Shuangbao Wang, YooSun Chung, Mike Behrmann and Heidi Graff have been awarded \$600,000 to evaluate the Kellar Instructional Handheld data System (KIHD system) in a two year federal Steppingstones to Technology Grant. The KIHD System is a data collection tool for teachers to be more effective in determining student progress on various academic and functional tasks. Instead of using paper and pencil to record behaviors or answers, a Personal Digital Assistant (PDA) is used to collect student behaviors or answers and automatically graph that performance.

KIHD System consists of two platforms, a Personal Digital Assistant (PDA) used to primarily collect data and a Personal Computer (PC), which will mainly define and analyze the data collected. The data input to the PDA browser is wirelessly transmitted to the PC and stored into a database which can be accessed on the internet. The KIHD System provides the technology to have one touch data collection and immediate availability of data analysis to teachers and parents to make evidence-based, educational decisions.

The fields of data collection and the influx of children with disabilities, needing one to one training and data collection and analysis to show individual student performance have converged so that development of an uncomplicated system of handling data only one time is possible. This system is flexible enough to collect data according to the way that teachers teach a curriculum in a step-by-step fashion or to enter an entire curriculum into a database for a parent before implementation. The NCLB mandate for accountability and maximum access to the general education curriculum embodied in IDEA is leading to higher expectations and greater accountability for schools and students with disabilities.

## Application/Registration Information

- The spring 2007 Schedule of Classes is online at <https://patriotweb.gmu.edu/>
- Registration for spring classes begins November 6, 2006
- Applications are being accepted for summer 2007. For application requirements and to apply online go to <http://gse.gmu.edu/admissions/adminrqts.htm>. For Track Two - Integrating Technology in Schools contact Dr. Priscilla Norton at [pnorton@gmu.edu](mailto:pnorton@gmu.edu).

## Upcoming Events

### Open House

The Instructional Technology Program will be holding an **Open House** on November 10, 2006 from 6:00 p.m. to 8:00 p.m. in Commerce I, Room 100 located at 4085 University Drive, Fairfax, Virginia for individuals interested in the program. Advisors will be available for Track One, Two and Three. Please RSVP to (703) 993-3798 or [kshillin@gmu.edu](mailto:kshillin@gmu.edu)

### Innovations in e-Learning Symposium

George Mason University (GMU) and the Defense Acquisition University (DAU) are partnering to host a symposium on June 6-7, 2007 at the Fairfax, VA campus.

This event is ideal for: managers, learning officers, instructional and/or curriculum designers, learning consultants, instructors, researchers and training and development professionals from small to large size businesses, vocational schools, community colleges, colleges and universities, and government agencies and organizations.

The symposium will cover the latest trends in e-Learning, gaming technology, mobile learning, knowledge management, open source, and distributed education. Keynote speakers and presentations from experts in the field of e-Learning will share the cognitive tools, technology and best practices for the effective design, delivery and implementation of e-learning.

For more information on the is event please visit <http://innovationsinelearning.gmu.edu/>

## IT Faculty

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Track Three Advisor, Professor, Graduate School of  
Education; Director, Kellar Institute of Human Disabilities

Dr. Kevin Clark - [kclark6@gmu.edu](mailto:kclark6@gmu.edu)  
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Technology Program; Associate Professor, Graduate School  
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For more information on IT Faculty go to  
<http://it.gse.gmu.edu/faculty.htm>.

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### **New IT Program Office Manager**

Ms. Kelley Shillingburg has been hired as the new IT Program Office Manager. She has recently moved from Morgantown, West Virginia to Fairfax. She comes to GMU from West Virginia University with fourteen years of experience in a university setting. Please feel free to contact her with any questions pertaining to the IT Program. She can be reached at (703) 993-3798 or [kshillin@gmu.edu](mailto:kshillin@gmu.edu).