Pop-Up Class Series: Fall 2017

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Geographic Information Systems (October 30)
Robert Neff
Location: LNDL, Lab A
http://tinyurl.com/lndl-pop-f17-gis

Geographic Information Systems (GIS) are the dominant tools for spatial analysis in all sectors of the economy, including sociodemographic analysis used to determine optimal locations for retail establishments, managing utilities and other public infrastructure, analysis human-environmental systems and processes, and military applications, to name a few. In this pop-up course, students will be exposed to the analytical power of GIS through a hands-on exercise that highlights some of the more basic and accessible analysis tools in a real-world analysis problem using publicly available data. Students also will learn about the broad analytical power of GIS through a brief introductory lecture (~20 minutes) at the start of the session. Students will leave this pop-up course having completed a spatial analysis and created their own maps to display the results. These activities are designed to give students a greater appreciation for the analytical power of GIS and the potential to develop valuable and marketable skills through future course work.

Practical Photoshop (October 25)
Julie Sayo
Location: LNDL, Lab A
http://tinyurl.com/lndl-pop-f17-photoshop

This pop-up class will cover the essentials to get you started in Photoshop. Photoshop is Adobe’s photo editing software. We’ll cover how to retouch images, color correction, digitally restoring old and damaged photographs and other practical applications for the software. Participants are encouraged to bring images (digital or printed) that they would like to restore. No experience with Photoshop is necessary.
Basics of Tinkercad (November 2)
Youlanda Halterman
Location: LNDL, Lab A
http://tinyurl.com/lndl-pop-f17-tinkercad

Explore the basics of Tinkercad, an easy to use web based tool to design 3d models. In this pop-up, each participant will learn to manipulate shapes to create 3 dimensional objects, create a 3D model that will later be printed at the library and create a user account that will allow them to continue to explore and design 3d models anytime and anywhere.

3D Scanning (November 8)
Billy Friebele, Jon Malis
Location: LNDL, Lab A
http://tinyurl.com/lndl-pop-f17-3dscan

In this workshop we will introduce the concept of 3D scanning, including handheld infrared scanners, 3D scanning attachments for cell phones, photogrammetry and free apps that allow users to create 3D models from photographs. A 3D scanner is a device that analyses an object to collect data about its shape. It then constructs a digital model that can be altered, animated, or 3D printed. This can also be accomplished by stitching multiple photographs together.

Participants are encouraged to bring objects to scan. Note: shiny objects are more challenging! We will experiment with different scanning techniques and learn how artists can use these files for 3D printing, augmented reality, and other creative projects.

Arduino Blink Challenge (November 15th)
Yanko Kranov
Location: Loyola Engineering
http://tinyurl.com/lndl-pop-f16-arduino

The "Arduino Blink Challenge" lesson explores how computer and software engineers work to solve the challenges of a society, such as providing systems for turning lights on and off automatically. Students work in teams to set up and program an Arduino board to turn a light on and off at a 5 second on and 2 second off interval. Teams build their system, program and test it, reflect on the challenge, and present their experiences to their class.